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<210> 4824

<211> 547

<212> PRT

<213> Homo sapiens

<400> 4824

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<212> DNA

<213> Homo sapiens

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 Ile Thr Gln Ser Gly Asp Arg Lys Ser Pro Ala Phe Thr Ala Val Pro
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<212> PRT

<213> Homo sapiens

<400> 4828

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 Ala Ser Ser Leu Asn Ser Trp Phe Ser Ala Ala Pro Asn Trp Ala Glu
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 Leu Val Leu Pro Ala Leu Gln Tyr Leu Ala Gly Glu Ser Arg Ala Val
 450 455 460
 Pro Ser Ser Phe Ser Pro Phe Val Glu Phe Lys Glu Lys Thr Gln Gln
 465 470 475 480
 Trp Lys Leu Leu Gly Gln Ser Gln Asp Asn Glu Lys Glu Leu Ala Ala
 485 490 495
 Leu Phe Gln Leu Trp Leu Glu Thr Lys Asp Gln Ala Phe Cys Lys Gln
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 Glu Asn Glu Asp Ser Ser Asp Ala Thr Thr Pro Val Pro Arg Val Arg

4010

<400> 4829

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180
cgctttgacc acagtgaaat atacacttac attggaagtg tggttatata tgttaaccca
240
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300
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360
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420
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1320
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1380
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1440
gccatgttgg atgaagagtg cctcagacct ggcacagtca ctgatgagac cttcttagaa
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1605

<210> 4830
 <211> 512
 <212> PRT
 <213> Homo sapiens

<400> 4830
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 20 25 30
 Asn Asn Leu Lys Lys Arg Phe Asp His Ser Glu Ile Tyr Thr Tyr Ile
 35 40 45
 Gly Ser Val Val Ile Ser Val Asn Pro Tyr Arg Ser Leu Pro Ile Tyr
 50 55 60
 Ser Pro Glu Lys Val Glu Glu Tyr Arg Asn Arg Asn Phe Tyr Glu Leu
 65 70 75 80
 Ser Pro His Ile Phe Ala Leu Ser Asp Glu Ala Tyr Arg Ser Leu Arg
 85 90 95
 Asp Gln Asp Lys Asp Gln Cys Ile Leu Ile Thr Gly Glu Ser Gly Ala
 100 105 110
 Gly Lys Thr Glu Ala Ser Lys Leu Val Met Ser Tyr Val Ala Ala Val
 115 120 125
 Cys Gly Lys Gly Ala Glu Val Asn Gln Val Lys Glu Gln Leu Leu Gln
 130 135 140
 Ser Asn Pro Val Leu Glu Ala Phe Gly Asn Ala Lys Thr Val Arg Asn
 145 150 155 160
 Asp Asn Ser Ser Arg Phe Gly Lys Tyr Met Asp Ile Glu Phe Asp Phe
 165 170 175
 Lys Gly Asp Pro Leu Gly Gly Val Ile Ser Asn Tyr Leu Leu Glu Lys
 180 185 190
 Ser Arg Val Val Lys Gln Pro Arg Gly Glu Arg Asn Phe His Val Phe
 195 200 205
 Tyr Gln Leu Leu Ser Gly Ala Ser Glu Glu Leu Leu Asn Lys Leu Lys
 210 215 220
 Leu Glu Arg Asp Phe Ser Arg Tyr Asn Tyr Leu Ser Leu Asp Ser Ala
 225 230 235 240
 Lys Val Asn Gly Val Asp Asp Ala Ala Asn Phe Arg Thr Val Arg Asn
 245 250 255
 Ala Met Gln Ile Val Gly Phe Met Asp His Glu Ala Glu Ser Val Leu
 260 265 270
 Ala Val Val Ala Ala Val Leu Lys Leu Gly Asn Ile Glu Phe Lys Pro
 275 280 285
 Glu Ser Arg Val Asn Gly Leu Asp Glu Ser Lys Ile Lys Asp Lys Asn
 290 295 300
 Glu Leu Lys Glu Ile Cys Glu Leu Thr Gly Ile Asp Gln Ser Val Leu
 305 310 315 320
 Glu Arg Ala Phe Ser Phe Arg Thr Val Glu Ala Lys Gln Glu Lys Val
 325 330 335
 Ser Thr Thr Leu Asn Val Ala Gln Ala Tyr Tyr Ala Arg Asp Ala Leu
 340 345 350
 Ala Lys Asn Leu Tyr Ser Arg Leu Phe Ser Trp Leu Val Asn Arg Ile
 355 360 365
 Asn Glu Ser Ile Lys Ala Gln Thr Lys Val Arg Lys Lys Val Met Gly

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      370      375      380
Val Leu Asp Ile Tyr Gly Phe Glu Ile Phe Glu Asp Asn Ser Phe Glu
385      390      395      400
Gln Phe Ile Ile Asn Tyr Cys Asn Glu Lys Leu Gln Gln Ile Phe Ile
      405      410      415
Glu Leu Thr Leu Lys Glu Glu Gln Glu Glu Tyr Ile Arg Glu Asp Ile
      420      425      430
Glu Trp Thr His Ile Asp Tyr Phe Asn Asn Ala Ile Ile Cys Asp Leu
      435      440      445
Ile Glu Asn Asn Thr Asn Gly Ile Leu Ala Met Leu Asp Glu Glu Cys
      450      455      460
Leu Arg Pro Gly Thr Val Thr Asp Glu Thr Phe Leu Glu Lys Leu Asn
465      470      475      480
Gln Val Cys Ala Thr His Gln His Phe Glu Ser Arg Met Ser Lys Cys
      485      490      495
Ser Arg Phe Leu Asn Asp Thr Ser Leu Pro His Ser Cys Phe Arg Ile
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<210> 4831

<211> 578

<212> DNA

<213> Homo sapiens

<400> 4831

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120
ggcgccgagc acggggacga gccgcgccac gggggcctca ctctgcgcct gggcctccac
180
cagcagagcg tgctcggcgg ccaggaccag ctgcgcgtcc gtgtgacgga gctggaggac
240
gaggtgcgca acctgcgcaa gatcaatcgg gacctgttcg acttctccac gcgcttcac
300
acggggccgg ccaagtgagg cccggagacc ccggcccgag gcgcccaggc ctgagcccca
360
tgccctccag caaccagggc ccgcgggtgt ggccccacc agcccaggcc tggactctcc
420
tcagttctgt gtcgtgttcg ggtttttctt ctgtgactgg gccgtcttgg tgtctcgtgg
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aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
578

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<210> 4832

<211> 105

<212> PRT

<213> Homo sapiens

<400> 4832

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Arg Thr Val Ala Leu Lys Gly Pro Val Thr Asn Ala Ala Ile Leu Leu
1      5      10      15
Ala Pro Val Ser Met Leu Ser Ser Asp Phe Arg Pro Ser Leu Pro Leu

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<210> 4833
<211> 872
<212> DNA
<213> Homo sapiens
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<210> 4834
<211> 147
<212> PRT
<213> Homo sapiens
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<400> 4834

Met Thr His Gln Asp Leu Ser Ile Thr Ala Lys Leu Ile Asn Gly Gly
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 Val Ala Gly Leu Val Gly Val Thr Cys Val Phe Pro Ile Asp Leu Ala
 20 25 30
 Lys Thr Arg Leu Gln Asn Gln His Gly Lys Ala Met Tyr Lys Gly Met
 35 40 45
 Ile Asp Cys Leu Met Lys Thr Ala Arg Ala Glu Gly Phe Phe Gly Met
 50 55 60
 Tyr Arg Gly Ala Ala Val Asn Leu Thr Leu Val Thr Pro Glu Lys Ala
 65 70 75 80
 Ile Lys Leu Ala Ala Asn Asp Phe Phe Arg Arg Leu Leu Met Glu Asp
 85 90 95
 Gly Met Gln Arg Asn Leu Lys Met Glu Met Leu Ala Gly Cys Gly Ala
 100 105 110
 Gly Met Cys Gln Val Val Val Thr Cys Pro Met Glu Met Leu Lys Ile
 115 120 125
 Gln Leu Gln Ala Cys Trp Thr Pro Gly Arg Pro Ser Ser Gly Leu Gly
 130 135 140
 Leu Ser Thr
 145

<210> 4835

<211> 1846

<212> DNA

<213> Homo sapiens

<400> 4835

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 120
 cagtgggaga tccagaatac cagccatctg gccgttgatg gggaccgggc agctgcttgg
 180
 cccgtgggta ttccagcacc atcccgcccg gctcccgtt ttgaggtgct gcgctgggac
 240
 tacttcacgg agcagcacgc tttctcctgc gccgatggct caccctgctg cccactgcgt
 300
 ggggctgacc gggctgatgt ggccgatgtt ctggggacag ctctagagga gctgaaccgc
 360
 cgctaccacc cggccttgcg gctccagaag cagcagctgg tgaatggcta ccgacgcttt
 420
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 480
 ggaggccgcc ggcccctcac tcgccgagtg cagctgctcc ggccgctgag ccgcgtggag
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 660
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 720
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 780

cgtttccccg gtgcccgggt gccatggctc agtgtgcaga cagccgcacc ctcaccactg
 840
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 960
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 1020
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 1080
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 1380
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 1680
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<210> 4836

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4836

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His	Met	Tyr	Gln	Leu	His	Lys	Ala	Phe	Ala	Arg	Ala	Glu	Leu	Glu	Arg
			20					25				30			
Thr	Tyr	Gln	Glu	Ile	Gln	Glu	Leu	Gln	Trp	Glu	Ile	Gln	Asn	Thr	Ser
		35				40					45				
His	Leu	Ala	Val	Asp	Gly	Asp	Arg	Ala	Ala	Ala	Trp	Pro	Val	Gly	Ile
	50				55					60					
Pro	Ala	Pro	Ser	Arg	Pro	Ala	Ser	Arg	Phe	Glu	Val	Leu	Arg	Trp	Asp
65				70					75				80		
Tyr	Phe	Thr	Glu	Gln	His	Ala	Phe	Ser	Cys	Ala	Asp	Gly	Ser	Pro	Arg

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<210> 4837
<211> 906
<212> DNA
<213> Homo sapiens
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<400> 4837
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120
actgtaaatt atgatagtgt caattctgac aactctaagc caaagatatt taaaagtcaa
180
atagagaaca taaatttgac caatggcagc aatgggagga acacagagtc cccagctgcc
240
attcaccctt gtggaaatcc tacagtgatt gaggacgctt tggacaagat taaaagcaat
300
gaccctgaca ccacagaagt caatttgaac aacattgaga acatcacaac acagaccctt
360
acccgctttg ctgaagccct caaggacaac actgtggtga agacgttcag tctggccaac
420
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acgcatgccg acgacagtgc agccatggcc attgcagaga tgctcaaagt caatgagcac
 480
 atcaccaacg taaacgtcga gtccaacttc ataacgggaa aggggatcct ggccatcatg
 540
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 660
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 720
 agaaatatgg ataaacagag gcaaaaacgt ttgcaggagc aaaaacagca ggagggatac
 780
 gatggaggac ccaatcttag gaccaaagtc tggcaaagag gaacacctag cccttccctt
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 900
 acgcgt
 906

<210> 4838
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 4838
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 Gln Glu Glu Glu Glu Glu Glu Asp Ser Asp Glu Gly Glu Arg Thr Ile
 20 25 30
 Glu Thr Ala Lys Gly Ile Asn Gly Thr Val Asn Tyr Asp Ser Val Asn
 35 40 45
 Ser Asp Asn Ser Lys Pro Lys Ile Phe Lys Ser Gln Ile Glu Asn Ile
 50 55 60
 Asn Leu Thr Asn Gly Ser Asn Gly Arg Asn Thr Glu Ser Pro Ala Ala
 65 70 75 80
 Ile His Pro Cys Gly Asn Pro Thr Val Ile Glu Asp Ala Leu Asp Lys
 85 90 95
 Ile Lys Ser Asn Asp Pro Asp Thr Thr Glu Val Asn Leu Asn Asn Ile
 100 105 110
 Glu Asn Ile Thr Thr Gln Thr Leu Thr Arg Phe Ala Glu Ala Leu Lys
 115 120 125
 Asp Asn Thr Val Val Lys Thr Phe Ser Leu Ala Asn Thr His Ala Asp
 130 135 140
 Asp Ser Ala Ala Met Ala Ile Ala Glu Met Leu Lys Val Asn Glu His
 145 150 155 160
 Ile Thr Asn Val Asn Val Glu Ser Asn Phe Ile Thr Gly Lys Gly Ile
 165 170 175
 Leu Ala Ile Met Arg Ala Leu Gln His Asn Thr Val Leu Thr Glu Leu
 180 185 190
 Arg Phe His Asn Gln Arg His Ile Met Gly Ser Gln Val Glu Met Glu
 195 200 205
 Ile Val Lys Leu Leu Lys Glu Asn Thr Thr Leu Leu Arg Leu Gly Tyr
 210 215 220
 His Phe Glu Leu Pro Gly Pro Arg Met Ser Met Thr Ser Ile Leu Thr

225		230		235		240									
Arg	Asn	Met	Asp	Lys	Gln	Arg	Gln	Lys	Arg	Leu	Gln	Glu	Gln	Lys	Gln
				245				250						255	
Gln	Glu	Gly	Tyr	Asp	Gly	Gly	Pro	Asn	Leu	Arg	Thr	Lys	Val	Trp	Gln
			260					265					270		
Arg	Gly	Thr	Pro	Ser	Pro	Ser	Pro	Tyr	Val	Ser	Pro	Arg	His	Ser	Pro
			275					280					285		
Trp	Ser	Ser	Pro	Lys	Leu	Pro	Tyr	Gly	Glu	Thr	Thr	Thr	Arg		
	290					295						300			

<210> 4839

<211> 1313

<212> DNA

<213> Homo sapiens

<400> 4839

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120
tccccggggc cgcccggccc tgatggccac tcacgctata gcgcccactc tgtcctgggc
180
catcccgcgc cagcagtgtg gccccagcc cgggcgccctg aatgctctcc ctccggatcg
240
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300
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360
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420
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480
gctcggcaaa gaaggaaggc agcttggtcc agaccttggg gagcagctgc agactgcctg
540
cctagaacag cctccttact ccagcctggc aggggaaggaa ggaacctgac ttgcttcgca
600
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960
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1020
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1080
tgaggtggag gaacagaagt gaaatgagca atctgctcca tttagaagtc agtcgcttcg
1140

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gctgttcatt ccactaatat ttatctagta cctattctgt gccaaagcatt gtctctacct
 1200
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 1260
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 1313

<210> 4840
 <211> 66
 <212> PRT
 <213> Homo sapiens

<400> 4840
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 Gly Thr Pro Ala Arg Gln Lys Leu Glu Lys Ala Arg Asp Val Ala Arg
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 Asp Pro Gly Thr Ser Pro Ser Ser Ser Pro Gly Pro Pro Gly Pro Asp
 35 40 45
 Gly His Ser Arg Tyr Ser Ala His Ser Val Leu Gly His Pro Ala Pro
 50 55 60
 Ala Val
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<210> 4841
 <211> 558
 <212> DNA
 <213> Homo sapiens

<400> 4841
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 ctggacgtcc attccatgca ccagctggag aagaccacca atgctgagat gagggaggtg
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 ctggctgagc tgctggagct aggggtgtcct gagcagagcc tgagggacgc catcacctg
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 300
 tcagcggctt gtgccctgct ccaggatctt cacaaggctt gtattggcca catccacgtc
 360
 ctccgagcct acatcaagac ccaagtgaac aaagagctgg agcagctcca ggggctggtg
 420
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 558

<210> 4842
 <211> 118
 <212> PRT

<213> Homo sapiens

<400> 4842

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Thr Asn Ala Glu Met Arg Glu Val Leu Ala Glu Leu Leu Glu Leu Gly
          20           25           30
Cys Pro Glu Gln Ser Leu Arg Asp Ala Ile Thr Leu Asp Leu Phe Cys
          35           40           45
His Ala Leu Ile Phe Cys Arg Gln Gln Gly Phe Ser Leu Glu Gln Thr
          50           55           60
Ser Ala Ala Cys Ala Leu Leu Gln Asp Leu His Lys Ala Cys Ile Gly
65           70           75           80
His Ile His Val Leu Arg Ala Tyr Ile Lys Thr Gln Val Asn Lys Glu
          85           90           95
Leu Glu Gln Leu Gln Gly Leu Val Glu Glu Arg Ser Arg Pro Ala Arg
          100          105          110
Lys Gly Ser Ala Ala Ser
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<210> 4843

<211> 6403

<212> DNA

<213> Homo sapiens

<400> 4843

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120
gcgcccggcc gcgacgcccg ggaccagat tgcgggttca gttggccttt accagagttt
180
gatccaagcc agattcgact gattgtatat caagactgtg aaagacgagg gagaaatgtt
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ttgtttgact ccagtgttaa gagaagaaat gaggacatat cagtatcgga cttaaatact
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360
ttaatgtctg caagagcacg ctatgagaga tacagtggca atcaggttct cttttgttca
420
gaaacgattg ccagatgttg gtatatccta ctttctggat ctgtgcttgt gaaaggctcc
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660
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720
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840

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1020
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1080
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<211> 626

<212> PRT

<213> Homo sapiens

<400> 4846

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<210> 4847

<211> 2804

<212> DNA

<213> Homo sapiens

<400> 4847

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 <212> PRT
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<213> Homo sapiens

<400> 4850

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			20					25					30		
Gln	Glu	Arg	Gly	Ser	Ala	His	Leu	Val	Ala	Leu	Lys	Cys	Ile	Pro	Lys
		35					40					45			
Lys	Ala	Leu	Arg	Gly	Lys	Glu	Ala	Leu	Val	Glu	Asn	Glu	Ile	Ala	Val
	50					55				60					
Leu	Arg	Arg	Ile	Ser	His	Pro	Asn	Ile	Val	Ala	Leu	Glu	Asp	Val	His
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<212> DNA

<213> Homo sapiens

<400> 4851

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<211> 207

<212> PRT

<213> Homo sapiens

<400> 4852

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			20					25					30		
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			35				40						45		
Ala	Leu	Pro	Asp	Gln	Tyr	Gln	Glu	Asp	Ala	Ser	Asp	Met	Lys	Asp	Met
	50					55					60				
Ser	Lys	Tyr	Lys	Pro	His	Ile	Leu	Leu	Ser	Gln	Glu	Asn	Thr	Gln	Ile
65					70					75				80	
Arg	Asp	Leu	Gln	Gln	Glu	Asn	Arg	Glu	Leu	Trp	Ile	Ser	Leu	Glu	Glu
			85						90					95	
His	Gln	Asp	Ala	Leu	Glu	Leu	Ile	Met	Ser	Lys	Tyr	Arg	Lys	Gln	Met
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Leu	Gln	Leu	Met	Val	Ala	Lys	Lys	Ala	Val	Asp	Ala	Glu	Pro	Val	Leu
			115					120					125		
Lys	Ala	His	Gln	Ser	His	Ser	Ala	Glu	Ile	Glu	Ser	Gln	Ile	Asp	Arg
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Ile	Cys	Glu	Met	Gly	Glu	Val	Met	Arg	Lys	Ala	Val	Gln	Val	Asp	Asp
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Asn	Lys	Glu	Leu	Arg	Glu	Leu	Leu	Ser	Ile	Ser	Ser	Glu	Ser	Leu	Gln
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<210> 4853

<211> 1467

<212> DNA

<213> Homo sapiens

<400> 4853

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<210> 4854

<211> 311

<212> PRT

<213> Homo sapiens

<400> 4854

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Arg Lys Val Glu Leu Pro Val Pro Thr His Arg Arg Pro Val Gln Ala
      50           55           60
Trp Val Glu Ser Leu Arg Gly Phe Glu Gln Glu Arg Val Gly Leu Ala
      65           70           75           80
Asp Leu His Pro Asp Val Phe Ala Thr Ala Pro Arg Leu Asp Ile Leu
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His Gln Val Ala Met Trp Gln Lys Asn Phe Lys Arg Ile Ser Tyr Ala
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Lys Thr Lys Thr Arg Ala Glu Val Arg Gly Gly Gly Arg Lys Pro Xaa
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Ala Ala Glu Arg His Trp Ala Gly Pro Ala Trp Gln His Pro Leu Ser
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Ala Leu Ala Arg Arg Arg Cys Cys Pro Trp Pro Pro Gly Pro Thr Ser
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Tyr Tyr Tyr Met Leu Pro Met Lys Val Arg Ala Leu Gly Leu Lys Val
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<213> Homo sapiens

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<210> 4856

<211> 237

<212> PRT

<213> Homo sapiens

<400> 4856

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Ala	Thr	Ala	Ala	Pro	Ala	Gly	Gly	Phe	Gly	Gly	Phe	Gly	Thr	Thr	Ser
			20				25						30		
Thr	Thr	Ala	Gly	Ser	Ala	Phe	Ser	Phe	Ser	Ala	Pro	Thr	Asn	Thr	Gly
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Thr	Gly	Phe	Gly	Thr	Thr	Gly	Thr	Ser	Thr	Gly	Leu	Gly	Thr	Gly	
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Leu	Gly	Thr	Gly	Leu	Gly	Phe	Gly	Gly	Phe	Asn	Thr	Gln	Gln	Gln	Gln
			85					90					95		
Gln	Gln	Thr	Thr	Leu	Gly	Gly	Leu	Phe	Ser	Gln	Pro	Thr	Gln	Ala	Pro
			100				105						110		
Thr	Gln	Ser	Asn	Gln	Leu	Ile	Asn	Thr	Ala	Ser	Ala	Leu	Ser	Ala	Pro
			115				120					125			
Thr	Leu	Leu	Gly	Asp	Glu	Arg	Asp	Ala	Ile	Leu	Ala	Lys	Trp	Asn	Gln
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Leu	Gln	Ala	Phe	Trp	Gly	Thr	Gly	Lys	Gly	Tyr	Phe	Asn	Asn	Asn	Ile
145					150					155				160	
Pro	Pro	Val	Glu	Phe	Thr	Gln	Glu	Asn	Pro	Phe	Cys	Arg	Phe	Lys	Ala
			165					170					175		
Val	Gly	Tyr	Ser	Cys	Met	Pro	Ser	Asn	Lys	Asp	Glu	Asp	Gly	Leu	Val
		180						185					190		
Val	Leu	Val	Phe	Asn	Lys	Lys	Glu	Thr	Glu	Ile	Arg	Ser	Gln	Gln	Gln
		195					200					205			
Gln	Leu	Val	Glu	Ser	Leu	His	Lys	Val	Leu	Gly	Gly	Asn	Gln	Thr	Leu
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225

230

235

<210> 4857

<211> 2887

<212> DNA

<213> Homo sapiens

<400> 4857

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420
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1380

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<210> 4858

<211> 269
 <212> PRT
 <213> Homo sapiens

<400> 4858

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Ile Leu Leu Leu Gln Leu Asp Leu Ile Glu Gln Gln Gln Gln Leu
 35           40           45
Gln Ala Lys Glu Lys Glu Ile Glu Glu Leu Lys Ser Glu Arg Asp Thr
 50           55           60
Leu Leu Ala Arg Ile Glu Arg Met Glu Arg Arg Met Gln Leu Val Lys
 65           70           75           80
Lys Asp Asn Glu Lys Glu Arg His Lys Leu Phe Gln Gly Tyr Glu Thr
 85           90           95
Glu Glu Arg Glu Glu Thr Glu Leu Ser Glu Lys Ile Lys Leu Glu Cys
100           105           110
Gln Pro Glu Leu Ser Glu Thr Ser Gln Thr Leu Pro Pro Lys Pro Phe
115           120           125
Ser Cys Gly Arg Ser Gly Lys Gly His Lys Arg Lys Ser Pro Phe Gly
130           135           140
Ser Thr Glu Arg Lys Thr Pro Val Lys Lys Leu Ala Pro Glu Phe Ser
145           150           155           160
Lys Val Lys Thr Lys Thr Pro Lys His Ser Pro Ile Lys Glu Glu Pro
165           170           175
Cys Gly Ser Leu Ser Glu Thr Val Cys Lys Arg Glu Leu Arg Ser Gln
180           185           190
Glu Thr Pro Glu Lys Pro Arg Ser Ser Val Asp Thr Pro Pro Arg Leu
195           200           205
Ser Thr Pro Gln Lys Gly Pro Ser Thr His Pro Lys Glu Lys Ala Phe
210           215           220
Ser Ser Glu Ile Glu Asp Leu Pro Tyr Leu Ser Thr Thr Glu Met Tyr
225           230           235           240
Leu Cys Arg Trp His Gln Pro Pro Pro Ser Pro Leu Pro Leu Arg Glu
245           250           255
Ser Ser Pro Lys Lys Glu Glu Thr Val Ala Ser Lys Ala
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<210> 4859
 <211> 689
 <212> DNA
 <213> Homo sapiens

<400> 4859

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ggcctcccac ggtgcctgtg ctgggtggcg gtggtggtgc caagaggaat ggaatgtcct
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<210> 4860
<211> 173
<212> PRT
<213> Homo sapiens
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<210> 4861
<211> 1622
<212> DNA
<213> Homo sapiens
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180
gcgaaggtgg agagttaccg gtgtcgaagc gccttcaagc tcttgagggt gaacgagagg
240
caccagattc tgcggcccg ccttcgggtg ttagactgtg gggcagctcc tggggcctgg
300
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360
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420
cctgctgacg tgactgacct gagaacctca cagagaatcc tcgagggtgct tctgggcagg
480
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600
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1622

<210> 4862
 <211> 260
 <212> PRT
 <213> Homo sapiens

<400> 4862
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 Thr Val Gly Ser Arg Cys Lys Asn Arg Thr Gly Ala Glu His Leu Trp
 35 40 45
 Leu Thr Arg His Leu Arg Asp Pro Phe Val Lys Ala Ala Lys Val Glu
 50 55 60
 Ser Tyr Arg Cys Arg Ser Ala Phe Lys Leu Leu Glu Val Asn Glu Arg
 65 70 75 80
 His Gln Ile Leu Arg Pro Gly Leu Arg Val Leu Asp Cys Gly Ala Ala
 85 90 95
 Pro Gly Ala Trp Ser Gln Val Ala Val Gln Lys Val Asn Ala Ala Gly
 100 105 110
 Thr Asp Pro Ser Ser Pro Val Gly Phe Val Leu Gly Val Asp Leu Leu
 115 120 125
 His Ile Phe Pro Leu Glu Gly Ala Thr Phe Leu Cys Pro Ala Asp Val
 130 135 140
 Thr Asp Pro Arg Thr Ser Gln Arg Ile Leu Glu Val Leu Pro Gly Arg
 145 150 155 160
 Arg Ala Asp Val Ile Leu Ser Asp Met Ala Pro Asn Ala Thr Gly Phe
 165 170 175
 Arg Asp Leu Asp His Asp Arg Leu Ile Ser Leu Cys Leu Thr Leu Leu
 180 185 190
 Ser Val Thr Pro Asp Ile Leu Gln Pro Gly Gly Thr Phe Leu Cys Lys
 195 200 205
 Thr Trp Ala Gly Ser Gln Ser Arg Arg Leu Gln Arg Arg Leu Thr Glu
 210 215 220
 Glu Phe Gln Asn Val Arg Ile Ile Lys Pro Glu Ala Ser Arg Lys Glu
 225 230 235 240
 Ser Ser Glu Val Tyr Phe Leu Ala Thr Gln Tyr His Gly Arg Lys Gly
 245 250 255
 Thr Val Lys Gln
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<210> 4863
 <211> 355
 <212> DNA
 <213> Homo sapiens

<400> 4863
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 120
 accatcaacc ctgaggacga cacggatcct ggccatgctg acctgggtcct ctatatcact
 180

aggtttgacc tggagttgcc tgatggtaac ncggcagtc ggggcgtcac ccagctgggc
 240
 ggggcctgct ccccaacctg gagctgcctc attaccgagg aacttggett cgacctggga
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 355

<210> 4864

<211> 118

<212> PRT

<213> Homo sapiens

<400> 4864

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Glu	Pro	Glu	Gly	Ala	Pro	Asn	Ile	Thr	Ala	Asn	Leu	Thr	Ser	Ser	Leu
			20					25					30		
Leu	Ser	Val	Cys	Gly	Trp	Ser	Gln	Thr	Ile	Asn	Pro	Glu	Asp	Asp	Thr
		35				40						45			
Asp	Pro	Gly	His	Ala	Asp	Leu	Val	Leu	Tyr	Ile	Thr	Arg	Phe	Asp	Leu
	50					55					60				
Glu	Leu	Pro	Asp	Gly	Asn	Xaa	Ala	Val	Arg	Gly	Val	Thr	Gln	Leu	Gly
65					70					75				80	
Gly	Ala	Cys	Ser	Pro	Thr	Trp	Ser	Cys	Leu	Ile	Thr	Glu	Asp	Thr	Gly
			85					90					95		
Phe	Asp	Leu	Gly	Val	Thr	Ile	Ala	His	Glu	Ile	Gly	His	Ser	Phe	Gly
		100						105					110		
Leu	Glu	His	Asp	Gly	Ala										
		115													

<210> 4865

<211> 444

<212> DNA

<213> Homo sapiens

<400> 4865

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 aaggccttcg ccgacagctc ttacctgctt cgccaccagc gcactcactc tggccagaag
 180
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 300
 cagaactcgt ccctgcgag ccatcagagg gtgcacaccg gtcagaggcc cttcagctgt
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 420
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 444

<210> 4866

<211> 148
 <212> PRT
 <213> Homo sapiens

<400> 4866
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 Pro Tyr Lys Cys Pro Arg Cys Gly Lys Ala Phe Ala Asp Ser Ser Tyr
 35 40 45
 Leu Leu Arg His Gln Arg Thr His Ser Gly Gln Lys Pro Tyr Lys Cys
 50 55 60
 Pro His Cys Gly Lys Ala Phe Gly Asp Ser Ser Tyr Leu Leu Arg His
 65 70 75 80
 Gln Arg Thr His Ser His Glu Arg Pro Tyr Ser Cys Thr Glu Cys Gly
 85 90 95
 Lys Cys Tyr Ser Gln Asn Ser Ser Leu Arg Ser His Gln Arg Val His
 100 105 110
 Thr Gly Gln Arg Pro Phe Ser Cys Gly Ile Cys Gly Lys Ser Phe Ser
 115 120 125
 Gln Arg Ser Ala Leu Ile Pro His Ala Arg Ser His Ala Arg Glu Lys
 130 135 140
 Pro Phe Thr Arg
 145

<210> 4867
 <211> 391
 <212> DNA
 <213> Homo sapiens

<400> 4867
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 180
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<210> 4868
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 4868
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      20             25             30
Gly Leu Lys Met Pro Ile Val Trp Trp Cys Ser Pro Cys Gln Gly Gln
      35             40             45
Glu Thr Glu Ala Ile Pro Ala Val Ser Arg Gln His Pro Leu Gly Leu
      50             55             60
Ser Leu Gly Trp Gly Tyr Pro Gly Met Gly Asp Phe Ser Tyr Gln Asn
      65             70             75             80
Gly Asp Val Glu Lys Glu Ala Asp Val Pro Arg Leu Val Ala Ser Phe
      85             90             95
Cys Pro Ser His Pro Pro Thr Lys Asp Met Arg Leu Leu Pro Ser Asn
      100            105            110
Leu Leu Gly Ala Ser Pro Asp Arg Thr Pro Ser Gly Ile
      115            120            125

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<210> 4869

<211> 418

<212> DNA

<213> Homo sapiens

<400> 4869

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120
caggactgca cggactgcct ggggaggggt ctttggcccc ccggttcctg cagggggggt
180
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300
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418

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<210> 4870

<211> 125

<212> PRT

<213> Homo sapiens

<400> 4870

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Met Ala Met Gly Ile Gly Trp Glu Leu Asn Gly Val Ala Thr Phe Gly
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Trp Thr Arg Arg Gln Pro Ser Phe Leu Gly Gln Asp Cys Thr Asp Cys
      20             25             30
Leu Gly Arg Gly Leu Trp Pro Pro Gly Ser Cys Arg Gly Ala Arg Gly
      35             40             45
Gly Pro Val Ser Ser Trp Ser Gln Val Gly Pro Ile Arg Cys Asp Pro
      50             55             60
Val Pro Pro Gln Gln Pro Trp Arg Arg Gly Thr Leu Pro Ala Val Ala
      65             70             75             80
Ala Ala Val Phe Leu Ala Cys Glu Arg Arg Gly Gln Ser Gly Arg Trp

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				85						90					95				
Glu	Ser	Gly	Cys	Cys	Lys	Val	Thr	Thr	Asn	Ser	Ser	Leu	Gly	Glu	Glu				
			100						105				110						
Glu	Glu	Asn	Ala	Ile	Asp	Phe	Gln	Glu	Pro	Ser	Glu	Val							
		115					120					125							

<210> 4871

<211> 1354

<212> DNA

<213> Homo sapiens

<400> 4871

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120
cagccctca ggccatgctg ctgctcagct gcatggcaaa gtcctgcaca tgctccttca
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240
tcagtctcaa ccgcagccgc tgctcccgc gcttgaggc ctgcagctgg cgctgggcct
300
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420
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720
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780
atggtgggga ctgccccctc ctttagcctg tgatatccac tgattccac cagctcaaag
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1200
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1260

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<210> 4872
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 4872
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 20 25 30
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 35 40 45
 Val Pro Ala Pro Ala Ala Ala Trp Ser Val Ser Thr Ala Ala Ala Ala
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 Pro Ala Ala Cys Arg Pro Ala Ala Gly Ala Gly Pro Cys Gln Gly His
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 Gln Gly Leu Pro Gly Ser Pro Leu Pro Glu
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<210> 4873
 <211> 948
 <212> DNA
 <213> Homo sapiens

<400> 4873
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 720

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 840
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<210> 4874
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 4874
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 20 25 30
 Leu Glu Asn His Val Val Thr Asp Glu Asp Glu Pro Ala Leu Lys Arg
 35 40 45
 Gln Arg Leu Glu Ile Asn Cys Gln Asp Pro Ser Ile Lys Ser Phe Leu
 50 55 60
 Tyr Ser Ile Asn Gln Thr Ile Cys Leu Arg Leu Asp Ser Ile Glu Ala
 65 70 75 80
 Lys Leu Gln Ala Leu Glu Ala Thr Cys Lys Ser Leu Glu Glu Lys Leu
 85 90 95
 Asp Leu Val Thr Asn Lys Gln His Ser Pro Ile Gln Val Pro Met Val
 100 105 110
 Ala Gly Ser Pro Leu Arg Thr Thr Gln Met Cys Asn Lys Val Arg Trp
 115 120 125

<210> 4875
 <211> 1255
 <212> DNA
 <213> Homo sapiens

<400> 4875
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 360
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<210> 4876

<211> 230

<212> PRT

<213> Homo sapiens

<400> 4876

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Ala	Val	His	Glu	Val	Glu	Lys	Trp	Leu	Pro	Arg	Leu	His	Ala	Leu	Val
		20						25				30			
Val	Gly	Thr	Gly	Leu	Gly	Arg	Asp	Ala	Leu	Leu	Arg	Asn	Val	Gln	
	35					40					45				
Gly	Ile	Leu	Glu	Val	Ser	Lys	Ala	Arg	Asp	Ile	Pro	Val	Val	Ile	Asp
	50					55					60				
Ala	Asp	Gly	Leu	Trp	Leu	Val	Ala	Gln	Gln	Pro	Ala	Leu	Ile	His	Gly
65				70					75					80	
Tyr	Arg	Lys	Ala	Val	Leu	Thr	Pro	Asn	His	Val	Glu	Phe	Ser	Arg	Leu
		85						90					95		
Tyr	Asp	Ala	Val	Leu	Arg	Gly	Pro	Met	Asp	Ser	Asp	Asp	Ser	His	Gly
	100						105					110			
Ser	Val	Leu	Arg	Leu	Ser	Gln	Ala	Leu	Gly	Asn	Val	Thr	Val	Val	Gln
	115					120					125				
Lys	Gly	Glu	Arg	Asp	Ile	Leu	Ser	Asn	Gly	Gln	Gln	Val	Leu	Val	Cys
	130					135					140				
Ser	Gln	Glu	Gly	Ser	Ser	Arg	Arg	Cys	Gly	Gly	Gln	Gly	Asp	Leu	Leu
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<210> 4878
<211> 122
<212> PRT
<213> Homo sapiens

<400> 4878
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35 40 45
Phe Met Asn Ile Arg Leu Ala Lys Val Thr Tyr Thr Asp Arg Trp Gly
50 55 60
His Gln Val Lys Leu Asp Asp Leu Phe Val Thr Gly Arg Asn Val Arg
65 70 75 80
Tyr Val His Ile Pro Asp Asp Val Asn Ile Thr Ser Thr Ile Glu Gln
85 90 95
Gln Leu Gln Ile Ile His Arg Val Arg Asn Phe Gly Gly Lys Gly Gln
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Gly Arg Trp Glu Phe Pro Pro Lys Lys Leu
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<210> 4879
<211> 1941
<212> DNA
<213> Homo sapiens

<400> 4879
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 1920
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<210> 4880

<211> 202

<212> PRT

<213> Homo sapiens

<400> 4880

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Ser Leu Ala Ala Ser Ala Gly His Ala Ala Ser Pro Val Leu Pro Ser
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Ala Thr Ala Ser Gly Pro His Val Lys Ser His Leu Thr Arg Val Val
      50                55                60
Thr Thr Val Leu Phe Trp Gly Phe Ser Lys Ala Ser Pro Val Val Leu
65                70                75                80
Arg Gly His Ser Glu Gln Ala Asn Thr Ala Arg Val Thr His Tyr Thr
      85                90                95
Gln Arg Lys Asp Asn Glu Gln Met Ala Ile Val Glu Asn Ser Val Val
      100                105                110
Cys Phe Ser Asn Ala Thr Tyr Phe Ser Arg Gln Val Ile Leu Pro Met
      115                120                125
Met Thr Ser Ala Thr Lys Leu Arg Ala Arg Gly Leu Pro Met Arg Leu
      130                135                140
Val Glu Ser Asn His Val Cys Ser Glu Ala Ser Gly Pro Ser Arg Pro
145                150                155                160
Cys His Arg Pro Glu His Arg Thr Val Ile Met Gln Arg Ala Val Thr
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Glu Ala Gly Val Ser Val Gly Gly Gly Glu Glu Gly Thr Ser Ala Phe
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Tyr Ile Arg Ser Glu Ala Thr Val Arg Lys
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<210> 4881

<211> 1333

<212> DNA

<213> Homo sapiens

<400> 4881

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720

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<210> 4882

<211> 100

<212> PRT

<213> Homo sapiens

<400> 4882

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			20					25				30			
Leu	Pro	Phe	Leu	Pro	Ser	Gln	Pro	Leu	Gly	Phe	Gly	Tyr	Met	Thr	Gln
		35				40					45				
Gln	Leu	Met	Asn	Leu	Ala	Gly	Gly	Ala	Val	Val	Leu	Ala	Leu	Glu	Gly
		50				55				60					
Gly	His	Asp	Leu	Thr	Ala	Ile	Cys	Asp	Ala	Ser	Glu	Ala	Cys	Val	Ala
65					70				75					80	
Ala	Leu	Leu	Gly	Asn	Arg	Val	Ser	Arg	Leu	Pro	Pro	Pro	Ser	Met	Leu
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Leu	Ser	Gly	Arg												
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<210> 4883

<211> 1371

<212> DNA

<213> Homo sapiens

<400> 4883

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<210> 4884<211> 410

<212> PRT

<213> Homo sapiens

<400> 4884

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Thr	Lys	Gln	Lys	Leu	Thr	Val	Cys	Pro	Ile	Ile	Asn	Gly	Glu	Asp	His
		20					25					30			
Leu	Arg	Leu	Leu	Asn	Phe	Gln	His	Asn	Phe	Ile	Thr	Arg	Ile	Gln	Asn
		35					40					45			


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Ile Ser Asn Leu Gln Lys Leu Ile Ser Leu Asp Leu Tyr Asp Asn Gln
 50          55          60
Ile Glu Glu Ile Ser Gly Leu Ser Thr Leu Arg Cys Leu Arg Val Leu
65          70          75          80
Leu Leu Gly Lys Asn Arg Ile Lys Lys Ile Ser Asn Leu Glu Asn Leu
          85          90          95
Lys Ser Leu Asp Val Leu Asp Leu His Gly Asn Gln Ile Thr Lys Ile
          100          105          110
Glu Asn Ile Asn His Leu Cys Glu Leu Arg Val Leu Asn Leu Ala Arg
          115          120          125
Asn Phe Leu Ser His Val Asp Asn Leu Asn Gly Leu Asp Ser Leu Thr
          130          135          140
Glu Leu Asn Leu Arg His Asn Gln Ile Thr Phe Val Arg Asp Val Asp
145          150          155          160
Asn Leu Pro Cys Leu Gln His Leu Phe Leu Ser Phe Asn Asn Ile Ser
          165          170          175
Ser Phe Asp Ser Val Ser Cys Leu Ala Asp Ser Ser Ser Leu Ser Asp
          180          185          190
Ile Thr Phe Asp Gly Asn Pro Ile Ala Gln Glu Ser Trp Tyr Lys His
          195          200          205
Thr Val Leu Gln Asn Met Met Gln Leu Arg Gln Leu Asp Met Lys Arg
          210          215          220
Ile Thr Glu Glu Glu Arg Arg Met Ala Ser Val Leu Ala Lys Lys Glu
225          230          235          240
Glu Glu Lys Lys Arg Glu Ser His Lys Gln Ser Leu Leu Lys Glu Lys
          245          250          255
Lys Arg Leu Thr Ile Asn Asn Val Ala Arg Gln Trp Asp Leu Gln Gln
          260          265          270
Arg Val Ala Asn Ile Ala Thr Asn Glu Asp Arg Lys Asp Ser Asp Ser
          275          280          285
Pro Gln Asp Pro Cys Gln Ile Asp Gly Ser Thr Leu Ser Ala Phe Pro
          290          295          300
Glu Glu Thr Gly Pro Leu Asp Ser Gly Leu Asn Asn Ala Leu Gln Gly
305          310          315          320
Leu Ser Val Ile Asp Thr Tyr Leu Val Glu Val Asp Gly Asp Thr Leu
          325          330          335
Ser Leu Tyr Gly Ser Gly Ala Leu Glu Ser Leu Asp Arg Asn Trp Ser
          340          345          350
Val Gln Thr Ala Gly Met Ile Thr Thr Val Ser Phe Thr Phe Ile Glu
          355          360          365
Phe Asp Glu Ile Val Gln Val Leu Pro Lys Leu Lys Ile Lys Phe Pro
          370          375          380
Asn Ser Leu His Leu Lys Phe Lys Glu Thr Asn Leu Val Met Gln Gln
385          390          395          400
Phe Asn Ala Leu Ala Gln Leu Arg Arg Tyr
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<210> 4885

<211> 489

<212> DNA

<213> Homo sapiens

<400> 4885

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 120
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<210> 4886
 <211> 77
 <212> PRT
 <213> Homo sapiens

<400> 4886
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 Val Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Ser
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 Leu Val Gly Phe Pro Phe Ser Lys Pro Gly Ile Ile Ser
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<210> 4887
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 <212> DNA
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<400> 4887
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<211> 429

<212> PRT

<213> Homo sapiens

<400> 4888

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			20					25					30		
Ser	Ala	His	Tyr	His	Val	Asn	Phe	Ser	Gln	Ala	Ile	Ser	Gln	Asp	Val
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Asn	Leu	His	Glu	Ala	Ile	Leu	Leu	Cys	Pro	Asn	Asn	Thr	Phe	Arg	Arg
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Asp	Pro	Thr	Ala	Arg	Thr	Ser	Gln	Ser	Gln	Glu	Pro	Phe	Leu	Gln	Leu
65					70					75				80	
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				85					90					95	
Thr	Gly	Phe	Leu	Ser	Pro	Val	Asp	Asn	His	Met	Arg	Asn	Leu	Thr	Ser
			100					105					110		
Gln	Asp	Leu	Leu	Tyr	Asp	Leu	Asp	Ile	Asn	Ile	Phe	Asp	Glu	Ile	Asn
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Gln	Leu	Phe	Asp	Glu	Pro	Asp	Ser	Asp	Ser	Gly	Leu	Ser	Leu	Asp	Ser
145					150					155				160	
Ser	His	Asn	Asn	Thr	Ser	Val	Ile	Lys	Ser	Asn	Ser	Ser	His	Ser	Val
			165					170					175		
Cys	Asp	Glu	Gly	Ala	Ile	Gly	Tyr	Cys	Thr	Asp	His	Glu	Ser	Ser	Ser
			180					185				190			
His	His	Asp	Leu	Glu	Gly	Ala	Val	Gly	Gly	Tyr	Tyr	Pro	Glu	Pro	Ser
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Lys	Leu	Cys	His	Leu	Asp	Gln	Ser	Asp	Ser	Asp	Phe	His	Gly	Asp	Leu
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				245					250					255	
Lys	Ile	Arg	Ser	Arg	Tyr	Leu	Glu	Asp	Pro	Asp	Arg	Thr	Leu	Ser	Arg
			260					265				270			
Asp	Asp	Gln	Arg	Ala	Lys	Ala	Leu	His	Ile	Pro	Phe	Ser	Val	Asp	Glu
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      325              330              335
Ile Ile Leu Asn Leu Glu Asp Asp Val Cys Asn Leu Gln Ala Lys Lys
      340              345              350
Glu Thr Leu Lys Arg Glu Gln Ala Gln Cys Asn Lys Ala Ile Asn Ile
      355              360              365
Met Lys Gln Lys Leu His Asp Leu Tyr His Asp Ile Phe Ser Arg Leu
      370              375              380
Arg Asp Asp Gln Gly Arg Pro Val Asn Pro Asn His Tyr Ala Leu Gln
385              390              395              400
Cys Thr His Asp Gly Ser Ile Leu Ile Val Pro Lys Glu Leu Val Ala
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<210> 4889

<211> 619

<212> DNA

<213> Homo sapiens

<400> 4889

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<210> 4890

<211> 90

<212> PRT

<213> Homo sapiens

<400> 4890

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Arg	Thr	Gly	Gln	Pro	Gln	Pro	Ala	Pro	Thr	Arg	Val	Asn	Ile	Ser	Arg
		35		40		45									
Pro	Ser	Pro	Thr	Leu	Phe	Pro	Asp	Ser	Gln	Gln	Thr	Asp	Val	Gly	Ser
	50			55		60									
Arg	Thr	Asp	Pro	Phe	Thr	His	Thr	His	Thr	His	Ser	His	Ser	Phe	Ala
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<210> 4891

<211> 1998

<212> DNA

<213> Homo sapiens

<400> 4891

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<210> 4892

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4892

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Ile	Lys	Arg	Gly	Arg	Gln	Ala	Glu	Glu	Glu	Cys	Ala	His	Arg	Gly	Ser
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Pro	Leu	Pro	Lys	Lys	Arg	Lys	Gly	Arg	Pro	Pro	Gly	His	Ile	Leu	Ser
			50			55					60				
Ser	Asp	Arg	Ala	Ala	Ala	Gly	Met	Val	Trp	Lys	Pro	Lys	Ser	Cys	Glu
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Pro	Ile	Arg	Arg	Glu	Gly	Pro	Lys	Trp	Asp	Pro	Ala	Arg	Leu	Asn	Glu
				85				90					95		
Ser	Thr	Thr	Phe	Val	Leu	Gly	Ser	Arg	Ala	Asn	Lys	Ala	Leu	Gly	Met
				100				105					110		
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Met Arg Ala Thr Gly Gly Lys Met Ala Tyr Leu Leu Ile Glu Glu Asp
145      150      155      160
Ile Arg Asp Leu Ala Ala Ser Asp Asp Tyr Arg Gly Cys Leu Asp Leu
      165      170      175
Lys Leu Glu Glu Leu Lys Ser Phe Val Leu Pro Ser Trp Met Val Glu
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<210> 4893

<211> 5212

<212> DNA

<213> Homo sapiens

<400> 4893

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<210> 4894

<211> 399

<212> PRT

<213> Homo sapiens

<400> 4894

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			20					25					30		
Pro	Ser	Ala	Arg	Ala	Arg	Pro	Arg	His	Lys	Ser	Leu	Asn	Ile	Lys	Asp
		35					40					45			
Lys	Ile	Ser	Glu	Trp	Glu	Gly	Lys	Lys	Glu	Val	Pro	Thr	Pro	Ala	Pro
	50					55				60					
Ser	Arg	Arg	Ala	Asp	Gly	Gln	Glu	Asp	Tyr	Leu	Pro	Ser	Ser	Thr	Val
65				70					75					80	
Glu	Arg	Arg	Ser	Ser	Asp	Gly	Val	Arg	Thr	Gln	Val	Thr	Glu	Ala	Lys
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Asn	Gly	Met	Arg	Pro	Gly	Thr	Glu	Ser	Thr	Glu	Lys	Glu	Arg	Asn	Lys
			100					105					110		
Gly	Ala	Val	Asn	Val	Gly	Gly	Gln	Asp	Pro	Glu	Pro	Gly	Gln	Asp	Leu

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      115              120              125
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Pro Arg Leu Gly Lys Leu Arg Phe Gln Asn Asp His Leu Ser Val Leu
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Lys Gln Val Lys Lys Leu Glu Gln Ala Leu Lys Asp Gly Ser Ala Gly
      165              170              175
Leu Asp Pro Gln Leu Pro Gly Thr Cys Tyr Ser Pro His Cys Pro Pro
      180              185              190
Asp Lys Ala Glu Ala Gly Ser Thr Leu Pro Glu Asn Leu Gly Gly Gly
      195              200              205
Ser Gly Ser Glu Val Ser Gln Arg Val His Pro Ser Asp Leu Glu Gly
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Arg Glu Pro Thr Pro Glu Leu Val Glu Asp Arg Lys Gly Ser Cys Arg
225              230              235              240
Arg Pro Trp Asp Arg Ser Leu Glu Asn Val Tyr Arg Gly Ser Glu Gly
      245              250              255
Ser Pro Thr Lys Pro Phe Ile Asn Pro Leu Pro Lys Pro Arg Arg Thr
      260              265              270
Phe Lys His Ala Gly Glu Gly Asp Lys Asp Gly Lys Pro Gly Ile Gly
      275              280              285
Phe Arg Lys Glu Lys Arg Asn Leu Pro Pro Leu Pro Ser Leu Pro Pro
      290              295              300
Pro Pro Leu Pro Ser Ser Pro Pro Pro Ser Ser Val Asn Arg Arg Leu
305              310              315              320
Trp Thr Gly Arg Gln Lys Ser Ser Ala Asp His Arg Lys Ser Tyr Glu
      325              330              335
Phe Glu Asp Leu Leu Gln Ser Ser Ser Glu Ser Ser Arg Val Asp Trp
      340              345              350
Tyr Ala Gln Thr Lys Leu Gly Leu Thr Arg Thr Leu Ser Glu Glu Asn
      355              360              365
Val Tyr Glu Asp Ile Leu Asp Pro Pro Met Lys Glu Asn Pro Tyr Glu
      370              375              380
Asp Ile Glu Leu His Gly Arg Cys Leu Gly Lys Lys Xaa Val Ser
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<210> 4895

<211> 1087

<212> DNA

<213> Homo sapiens

<400> 4895

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120
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180
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240
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300
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360

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 480
 aacccttgat gtctagagat tgggggctgg tgaagggggg ttggcttcaa tgactggata
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 660
 cacacttagt cttgtaattt caggccagaa attctcaaca ctattttgca tctgttttct
 720
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 780
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<210> 4896

<211> 109

<212> PRT

<213> Homo sapiens

<400> 4896

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Ser	Asp	Leu	Asp	Tyr	Ile	Gln	Tyr	Arg	Leu	Glu	Tyr	Glu	Ile	Lys	Thr
			20					25					30		
Asn	His	Pro	Asp	Ser	Ala	Ser	Glu	Lys	Asn	Pro	Val	Thr	Leu	Leu	Lys
		35					40					45			
Glu	Leu	Ser	Val	Ile	Lys	Ser	Arg	Tyr	Gln	Thr	Leu	Tyr	Ala	Arg	Phe
	50					55				60					
Lys	Pro	Val	Ala	Val	Glu	Gln	Lys	Glu	Ser	Lys	Ser	Arg	Ile	Cys	Ala
65					70				75					80	
Thr	Val	Lys	Lys	Thr	Met	Asn	Met	Ile	Gln	Lys	Leu	Gln	Lys	Gln	Thr
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Asp	Leu	Glu	Val	Met	Leu	Ser	Val	Asp	Ser	Cys	His	His			
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<210> 4897

<211> 1733

<212> DNA

<213> Homo sapiens

<400> 4897

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120
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<210> 4898
 <211> 92
 <212> PRT
 <213> Homo sapiens

<400> 4898
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 Ser Ser Trp Asp Tyr Arg Arg Pro Arg Cys Pro Ala Asn Phe Cys
 35 40 45
 Ile Phe Ser Lys Asp Arg Val Ser Pro Cys Trp Leu Gly Trp Ser Gln
 50 55 60
 Thr Pro Asp Xaa Thr Arg Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg
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 Arg Glu Pro Pro Arg Pro Gly Asp Leu Trp Asn Phe
 85 90

<210> 4899
 <211> 444
 <212> DNA
 <213> Homo sapiens

<400> 4899
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 180
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<210> 4900
 <211> 118
 <212> PRT
 <213> Homo sapiens

<400> 4900
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      20             25             30
Arg Gln Gln Arg Gly Pro Leu Gly Trp Val Gly Val Leu Leu Asp Ser
      35             40             45
Gly Gly Gly Glu His Leu Pro Phe Pro Gln Pro Cys Val His Pro Gln
      50             55             60
Met Leu Leu Ala His Arg Ile Ser Gln Cys His Gly Pro Thr Thr Ala
      65             70             75             80
Arg Leu Gly Pro Val Ser Gly Gln His Pro Glu Gly Gln Gly Pro Ser
      85             90             95
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<210> 4901

<211> 1520

<212> DNA

<213> Homo sapiens

<400> 4901

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960

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 1380
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<210> 4902

<211> 184

<212> PRT

<213> Homo sapiens

<400> 4902

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Tyr	Val	Gly	Lys	Thr	Ser	Leu	Val	Glu	Arg	Tyr	Val	His	Asp	Arg	Phe
			20					25					30		
Leu	Val	Gly	Pro	Tyr	Gln	Asn	Thr	Ile	Gly	Ala	Ala	Phe	Val	Ala	Lys
		35					40					45			
Val	Met	Ser	Val	Gly	Asp	Arg	Thr	Val	Thr	Leu	Gly	Ile	Trp	Asp	Thr
	50					55				60					
Ala	Gly	Ser	Glu	Arg	Tyr	Glu	Ala	Met	Ser	Arg	Ile	Tyr	Tyr	Arg	Gly
65					70					75				80	
Ala	Lys	Ala	Ala	Ile	Val	Cys	Tyr	Asp	Leu	Thr	Asp	Ser	Ser	Ser	Phe
				85					90					95	
Glu	Arg	Ala	Lys	Phe	Trp	Val	Lys	Glu	Leu	Arg	Ser	Leu	Glu	Glu	Gly
			100					105					110		
Cys	Gln	Ile	Tyr	Leu	Cys	Gly	Thr	Lys	Ser	Asp	Leu	Leu	Glu	Glu	Asp
		115					120					125			
Arg	Arg	Arg	Arg	Arg	Val	Asp	Phe	His	Asp	Val	Gln	Asp	Tyr	Ala	Asp
		130				135					140				
Ser	Ser	Cys	Ser	Ser	Ala	Leu	Trp	Gly	Val	Gly	Val	Cys	Gly	Cys	Leu
145					150					155				160	
Gly	Gly	Ser	Lys	Lys	Ile	Gly	Thr	Ala	Leu	Ala	Ala	Arg	Ala	Arg	Cys
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Ser	Arg	Arg	Ser	Ser	Trp	Pro	Pro								
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<210> 4903

<211> 1064

<212> DNA

<213> Homo sapiens

<400> 4903

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 180
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 360
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 420
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 480
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<210> 4904

<211> 106

<212> PRT

<213> Homo sapiens

<400> 4904

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 20 25 30
 Asn Lys Gln Thr Ala Val Pro Val Gly Gly Leu Ser Arg Lys Lys Val
 35 40 45
 Pro Gln Glu Pro Trp Ala Thr Val Met Glu Lys Arg Leu Gln Glu Ala

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      50              55              60
Gln Leu Tyr Lys Glu Glu Gly Asn Gln Arg Tyr Arg Glu Gly Lys Tyr
65              70              75              80
Arg Asp Ala Val Ser Arg Tyr His Arg Ala Leu Leu Gln Leu Arg Gly
      85              90              95
Leu Asp Pro Xaa Ser Ala Leu Ser Val Thr
      100              105

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<210> 4905
 <211> 615
 <212> DNA
 <213> Homo sapiens

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 420
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<210> 4906
 <211> 144
 <212> PRT
 <213> Homo sapiens

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<400> 4906
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Cys Ala Glu Thr Leu Glu Asp Leu Asp Leu Ser Tyr Asn Asn Leu Glu
      20              25              30
Gln Leu Pro Trp Glu Ala Leu Gly Arg Leu Gly Asn Val Asn Thr Leu
      35              40              45
Gly Leu Asp His Asn Leu Leu Ala Ser Val Pro Ala Gly Ala Phe Ser
      50              55              60
Arg Leu His Lys Leu Ala Arg Leu Asp Met Thr Ser Asn Arg Leu Thr
      65              70              75              80
Thr Ile Pro Pro Asp Pro Leu Phe Ser Arg Leu Pro Leu Leu Ala Arg

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	85		90		95											
Pro	Arg	Gly	Ser	Pro	Ala	Ser	Ala	Leu	Val	Leu	Ala	Phe	Gly	Gly	Asn	
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<210> 4907

<211> 1748

<212> DNA

<213> Homo sapiens

<400> 4907

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 1748

<210> 4908
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 4908
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 Gly His Arg Arg Ala Ser Leu
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<210> 4909
 <211> 1960
 <212> DNA
 <213> Homo sapiens

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 120
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420
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480
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600
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1960

<210> 4910
 <211> 423
 <212> PRT
 <213> Homo sapiens

<400> 4910
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 35 40 45
 Ile Leu Ala His Gly Gly Val Arg Phe Met Trp Ile Lys His Asn Asn
 50 55 60
 Leu Tyr Leu Val Ala Thr Ser Lys Lys Asn Ala Cys Val Ser Leu Val
 65 70 75 80
 Phe Ser Phe Leu Tyr Lys Val Val Gln Val Phe Ser Glu Tyr Phe Lys
 85 90 95
 Glu Leu Glu Glu Glu Ser Ile Arg Asp Asn Phe Val Ile Ile Tyr Glu
 100 105 110
 Leu Leu Asp Glu Leu Met Asp Phe Gly Phe Pro Gln Thr Thr Asp Ser
 115 120 125
 Lys Ile Leu Gln Glu Tyr Ile Thr Gln Gln Ser Asn Lys Leu Glu Thr
 130 135 140
 Gly Lys Ser Arg Val Pro Pro Thr Val Thr Asn Ala Val Ser Trp Arg
 145 150 155 160
 Ser Glu Gly Ile Lys Tyr Lys Lys Asn Glu Val Phe Ile Asp Val Ile
 165 170 175
 Glu Ser Val Asn Leu Leu Val Asn Ala Asn Gly Ser Val Leu Leu Ser
 180 185 190
 Glu Ile Val Gly Thr Ile Lys Met Arg Val Phe Leu Ser Gly Met Pro
 195 200 205
 Glu Leu Arg Leu Gly Leu Asn Asp Lys Val Leu Phe Asp Asn Thr Gly
 210 215 220
 Arg Gly Lys Ser Lys Ser Val Glu Leu Glu Asp Val Lys Phe His Gln
 225 230 235 240
 Cys Val Arg Leu Ser Arg Phe Glu Asn Asp Arg Thr Ile Ser Phe Ile
 245 250 255
 Pro Pro Asp Gly Glu Phe Glu Leu Met Ser Tyr Arg Leu Asn Thr His
 260 265 270
 Val Lys Pro Leu Ile Trp Ile Glu Ser Val Ile Glu Lys Phe Ser His
 275 280 285
 Ser Arg Ile Glu Tyr Met Val Lys Ala Lys Gly Gln Phe Lys Lys Gln
 290 295 300
 Ser Val Ala Asn Gly Val Glu Ile Ser Val Pro Val Pro Ser Asp Ala
 305 310 315 320
 Asp Ser Pro Arg Phe Lys Thr Ser Val Gly Ser Ala Lys Tyr Val Pro
 325 330 335
 Glu Arg Asn Val Val Ile Trp Ser Ile Lys Ser Phe Pro Gly Gly Lys
 340 345 350
 Glu Tyr Leu Met Arg Ala His Phe Gly Leu Pro Ser Val Glu Lys Glu
 355 360 365
 Glu Val Glu Gly Arg Pro Pro Ile Gly Val Lys Phe Glu Ile Pro Tyr

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      370              375              380
Phe Thr Val Ser Gly Ile Gln Val Arg Tyr Met Lys Ile Ile Glu Lys
385              390              395              400
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Asp Tyr Gln Leu Arg Thr Ser
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<210> 4911

<211> 1862

<212> DNA

<213> Homo sapiens

<400> 4911

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180
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720
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1200

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 1560
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 1740
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 1862

<210> 4912

<211> 453

<212> PRT

<213> Homo sapiens

<400> 4912

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Val	Lys	Arg	Asn	Phe	Leu	Glu	Ala	Leu	Lys	Ser	Asn	Asp	Phe	Gly	Lys
			20					25					30		
Leu	Lys	Ala	Ile	Leu	Ile	Gln	Arg	Gln	Ile	Asp	Val	Asp	Thr	Val	Phe
		35				40					45				
Glu	Val	Glu	Asp	Glu	Asn	Met	Val	Leu	Ala	Ser	Tyr	Lys	Gln	Gly	Tyr
	50				55					60					
Trp	Leu	Pro	Ser	Tyr	Lys	Leu	Lys	Ser	Ser	Trp	Ala	Thr	Gly	Leu	His
65				70				75						80	
Leu	Ser	Val	Leu	Phe	Gly	His	Val	Glu	Cys	Leu	Leu	Val	Leu	Leu	Asp
			85					90						95	
His	Asn	Ala	Thr	Ile	Asn	Cys	Arg	Pro	Asn	Gly	Lys	Thr	Pro	Leu	His
		100						105					110		
Val	Ala	Cys	Glu	Met	Ala	Asn	Val	Asp	Cys	Val	Lys	Ile	Leu	Cys	Asp
		115				120					125				
Arg	Gly	Ala	Lys	Leu	Asn	Cys	Tyr	Ser	Leu	Ser	Gly	His	Thr	Ala	Leu
	130				135						140				
His	Phe	Cys	Thr	Thr	Pro	Ser	Ser	Ile	Leu	Cys	Ala	Lys	Gln	Leu	Val
145				150				155						160	
Trp	Arg	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu	Val	Asn
			165			170							175		
Glu	Val	Glu	His	Val	Thr	Gln	Val	Asn	His	Met	Leu	Gly	Asn	Ser	Leu

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      180      185      190
Val Asn Glu Val Glu His Gly Ala Asn Val Asn Met Lys Thr Asn Asn
      195      200      205
Gln Asp Glu Glu Thr Pro Leu His Thr Ala Ala His Phe Gly Leu Ser
      210      215      220
Glu Leu Val Ala Phe Tyr Val Glu His Gly Ala Ile Val Asp Ser Val
      225      230      235      240
Asn Ala His Met Glu Thr Pro Leu Ala Ile Ala Ala Tyr Trp Ala Leu
      245      250      255
Arg Phe Lys Glu Gln Glu Tyr Ser Thr Glu His His Leu Val Cys Arg
      260      265      270
Met Leu Leu Asp Tyr Lys Ala Glu Val Asn Ala Arg Asp Asp Asp Phe
      275      280      285
Lys Ser Pro Leu His Lys Ala Ala Trp Asn Cys Asp His Val Leu Met
      290      295      300
His Met Met Leu Glu Ala Gly Ala Glu Ala Asn Leu Met Asp Ile Asn
      305      310      315      320
Gly Cys Ala Ala Ile Gln Tyr Val Leu Lys Val Thr Ser Val Arg Pro
      325      330      335
Ala Ala Gln Pro Glu Ile Cys Tyr Gln Leu Leu Leu Asn His Gly Ala
      340      345      350
Ala Arg Ile Tyr Pro Pro Gln Phe His Lys Val Ile Gln Ala Cys His
      355      360      365
Ser Cys Pro Lys Ala Ile Glu Val Val Val Asn Ala Tyr Glu His Ile
      370      375      380
Arg Trp Asn Thr Lys Trp Arg Arg Ala Ile Pro Asp Asp Asp Leu Glu
      385      390      395      400
Val Asn Asn Arg Phe Pro Ser Asn Ser Phe His Tyr Gln Val Leu Pro
      405      410      415
Asp Cys Ser Arg Ser Thr Glu Asn Cys Asn Lys Lys Val Gly Phe Glu
      420      425      430
Asn Ala Phe Lys Ala Tyr Ser Asn Ala Met Arg Gln Arg Val Ile Lys
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Cys Arg Phe Glu Ser
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<210> 4913
<211> 2090
<212> DNA
<213> Homo sapiens

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300
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360

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ccggcccccg cgcgcggggc tcgcaccccc aatctcaacc ccaaccccct catcaacgtg
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<210> 4914

<211> 529

<212> PRT

<213> Homo sapiens

<400> 4914

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			20					25					30		
Asn	Pro	Asn	Pro	Leu	Ile	Asn	Val	Arg	Asp	Arg	Leu	Phe	His	Ala	Leu
		35					40					45			
Phe	Phe	Lys	Met	Ala	Val	Thr	Tyr	Ser	Arg	Leu	Phe	Pro	Pro	Ala	Phe
	50					55					60				
Arg	Arg	Leu	Phe	Glu	Phe	Phe	Val	Leu	Leu	Lys	Ala	Leu	Phe	Val	Leu
65					70					75				80	
Phe	Val	Leu	Ala	Tyr	Ile	His	Ile	Val	Phe	Ser	Arg	Ser	Pro	Ile	Asn
			85						90					95	
Cys	Leu	Glu	His	Val	Arg	Asp	Lys	Trp	Pro	Arg	Glu	Gly	Ile	Leu	Arg
			100					105					110		
Val	Glu	Val	Arg	His	Asn	Ser	Ser	Arg	Ala	Pro	Val	Phe	Leu	Gln	Phe
		115					120					125			
Cys	Asp	Ser	Gly	Gly	Arg	Gly	Ser	Phe	Pro	Gly	Leu	Ala	Val	Glu	Pro
	130					135					140				
Gly	Ser	Asn	Leu	Asp	Met	Glu	Asp	Glu	Glu	Glu	Glu	Glu	Leu	Thr	Met
145					150					155				160	
Glu	Met	Phe	Gly	Asn	Ser	Ser	Ile	Lys	Phe	Glu	Leu	Asp	Ile	Glu	Pro
			165						170					175	
Lys	Val	Phe	Lys	Pro	Pro	Ser	Ser	Thr	Glu	Ala	Leu	Asn	Asp	Ser	Gln
		180						185					190		
Glu	Phe	Pro	Phe	Pro	Glu	Thr	Pro	Thr	Lys	Val	Trp	Pro	Gln	Asp	Glu
		195					200					205			
Tyr	Ile	Val	Glu	Tyr	Ser	Leu	Glu	Tyr	Gly	Phe	Leu	Arg	Leu	Ser	Gln
	210					215				220					
Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro	Val	Met	Val	Val	Thr	Leu	Asp
225					230					235				240	
Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp	Arg	Phe	Ser	Arg	Leu	Leu	Leu
			245					250					255		
Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile	Leu	Met	Ser	Ser	Val	Lys	Gly
		260						265					270		
Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly	Phe	Leu	Arg	Asn	Val	Val	Ser
		275					280					285			
Gly	Glu	His	Tyr	Arg	Phe	Val	Ser	Met	Trp	Met	Ala	Arg	Thr	Ser	Tyr
	290					295					300				
Leu	Ala	Ala	Phe	Ala	Ile	Met	Val	Ile	Phe	Thr	Leu	Ser	Val	Ser	Met
305					310					315				320	
Leu	Leu	Arg	Tyr	Ser	His	His	Gln	Ile	Phe	Val	Phe	Ile	Val	Asp	Leu
			325						330				335		
Leu	Gln	Met	Leu	Glu	Met	Asn	Met	Ala	Ile	Ala	Phe	Pro	Ala	Ala	Pro

340 345 350
 Leu Leu Thr Val Ile Leu Ala Leu Val Gly Met Glu Ala Ile Met Ser
 355 360 365
 Glu Phe Phe Asn Asp Thr Thr Thr Ala Phe Tyr Ile Ile Leu Ile Val
 370 375 380
 Trp Leu Ala Asp Gln Tyr Asp Ala Ile Cys Cys His Thr Ser Thr Ser
 385 390 395 400
 Lys Arg His Trp Leu Arg Phe Phe Tyr Leu Tyr His Phe Ala Phe Tyr
 405 410 415
 Ala Tyr His Tyr Arg Phe Asn Gly Gln Tyr Ser Ser Leu Ala Leu Val
 420 425 430
 Thr Ser Trp Leu Phe Ile Gln His Ser Met Ile Tyr Phe Phe His His
 435 440 445
 Tyr Glu Leu Pro Ala Ile Leu Gln Gln Val Arg Ile Gln Glu Met Leu
 450 455 460
 Leu Gln Ala Pro Pro Leu Gly Pro Gly Thr Pro Thr Ala Leu Pro Asp
 465 470 475 480
 Asp Met Asn Asn Asn Ser Gly Ala Pro Ala Thr Ala Pro Asp Ser Ala
 485 490 495
 Gly Gln Pro Pro Ala Leu Gly Pro Val Phe Glu Leu Val Ser Lys Glu
 500 505 510
 Arg Gly Trp Gly Ser Ala Glu Gly Ser Gly Gly Val Leu Val Gly Leu
 515 520 525
 Gln

<210> 4915

<211> 1157

<212> DNA

<213> Homo sapiens

<400> 4915

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 120
 tctcagtcac caagactgca ggagaggcaa ggccatgtca ggccctggcag ctgtggctgg
 180
 ggccaggagg gagggaccag gcccatgtgg gaacaggaca aatgcccag gccacatcct
 240
 tcgtccacag tcttgaggct cctgccaggc tgacaggaaa cagcccagag ctgaggtctt
 300
 tgagccggtc attccaacat tgcaagcacc acccagtcct cctggctgaa gttgagtgag
 360
 gtaagaaggg cccgtggcca gggacagggg gggccctcag gaggtccca gggctgctgc
 420
 tgaggccggg cagcgtccta ggcccaagg acactccttt ctccccgctg cccaagcca
 480
 ccattggcagc agcatcaggg ctgtgccgcc tcatcccat ccctgtctgg gcagatgtga
 540
 aggggtgaccg tctccccac tgctccgaag ttgacggtct ggggtggaaa ctctgtggtg
 600
 aagctgtctt ggccactgtc cgcagaacgc cggatgcggg tgcagaaaga ctgcgtccag
 660

ggagcactgc ccacaggccg agccggggcc tcccgcaaga ggaaggaggt gccctcaagg
 720
 ctacggacct ggggtcccgg tggtagacgc ccacggggct caggcctaaa gaggccgaga
 780
 gggcctcggg gacccagtgc agccccacgc tgagcagcac aggctgcccc accgtggggt
 840
 ccccgatctc tctctggatc accgagacct cgcaggagg gtcacaggg gcgccaggcc
 900
 cagggccacc acagtggaag gtctccctt cccaggcac gtaatcttcc aggtcagcca
 960
 gtgtcagcat gcggccgttg tgcgtgagga tcttggggtc acgatcccca aggtgtgtg
 1020
 tgtcctggga ctctccgtc acaaagagag tctccgtctt cccctcttc ctagtccgc
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 ctctctctct ctctctc
 1157

<210> 4916

<211> 59

<212> PRT

<213> Homo sapiens

<400> 4916

Met	Arg	Val	Gln	Lys	Asp	Cys	Val	Gln	Gly	Ala	Leu	Pro	Thr	Gly	Arg
1				5					10					15	
Ala	Gly	Ala	Ser	Arg	Lys	Arg	Lys	Glu	Val	Pro	Ser	Arg	Leu	Arg	Thr
			20					25					30		
Trp	Gly	Pro	Gly	Gly	Asp	Ala	Pro	Arg	Gly	Ser	Gly	Leu	Lys	Arg	Pro
		35					40					45			
Arg	Gly	Pro	Arg	Gly	Pro	Ser	Ala	Ala	Pro	Arg					
	50						55								

<210> 4917

<211> 1544

<212> DNA

<213> Homo sapiens

<400> 4917

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 120
 cagtctgggc gcgagagccg ccaagcgcgc actccgttcc tctggtgcc ccgccccgtc
 180
 cggccgcggc cccgcccctc ccggcgcccc gccccgtccg gcagcggcct cgtccctcc
 240
 gatccccccc gcgcccggga cccctggccc cactgttggg ccagctcgcc gggtcggcc
 300
 atgggccccg ccgctcgccc cgcgtgaga tcgccgccgc cgcctccgcc gccgctccg
 360
 tctccgtgc tgctgtgct gccctgctg ccgctgtggc tgggcctggc ggggcccggg
 420

gccgcggcgg acggcagcga gccggcggcc ggggcggggc ggggcggagc ccgcgcgctg
 480
 cggttgacg tgagactgcc gcgccaggac gctctggtcc tggagggcgt caggatcggc
 540
 tccgaagccg acccggcgcc cctgctgggc ggtcgtctgc tgctgatgga tgcctggat
 600
 gctgagcagg aggcacccgc agatggctgg attgcagtgg catatgtggg caaggagcag
 660
 gcggcccgat tccaccagga gaataagggc agtggcccgc aggcctatcc caaggccctg
 720
 gtccagcaga tgcggcgggc cctcttctctg ggtgcctctg ccctgcttct tctcatcctg
 780
 aaccacaacg tggcccgaga gctggacata tcccagcttc tgctcaggcc agtgatcgtc
 840
 ctccattatt cctccaatgt caccaagctg ttggatgcat tgctgcagag gaccagggc
 900
 acggctgaga tcaccagcgg agagtccctg tctgccaata tcgagtggaa gttgacctg
 960
 tggaccacct gtggcctctc caaggatggc tatggaggat ggcaggactt ggtctgcctt
 1020
 ggaggcagtc gtgccagga gcagaaaccc ctgcagcagc tggggaacgc catcctgctg
 1080
 gtggccatgc tcctgtgcac aggcctcgtg gtccaggccc agcggcaggc gtcgcggcag
 1140
 agccagcggg agctcggagg ccaggatggc ctgtttaagc gccgcgtggt gcggagactg
 1200
 gcatccctca agacacggcg ctgccgctg agcagggcag cgcagggcct cccagatccg
 1260
 ggtgctgaga cctgtgcggt gtgcctggac tacttctgca acaaacaggc tagtgccccg
 1320
 gtggctccgg gtgctgccct gtaagcacga gtttcaccga gactgtgtgg acccctggct
 1380
 gatgctccag cagacctgcc cactgtgcaa attcaacgct ctgggtgagc accaggggtg
 1440
 gggctccctg gctactctg cctgctcctc acctgatgcc tctctccctg ttcttcttcc
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 1544

<210> 4918

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4918

Met	Gly	Pro	Ala	Ala	Arg	Pro	Ala	Leu	Arg	Ser	Pro	Pro	Pro	Pro	Pro
1				5				10					15		
Pro	Pro	Pro	Pro	Ser	Pro	Leu	Leu	Leu	Leu	Leu	Pro	Leu	Leu	Pro	Leu
			20				25					30			
Trp	Leu	Gly	Leu	Ala	Gly	Pro	Gly	Ala	Ala	Ala	Asp	Gly	Ser	Glu	Pro
		35				40					45				
Ala	Ala	Gly	Ala	Gly	Arg	Gly	Gly	Ala	Arg	Ala	Val	Arg	Val	Asp	Val
	50					55				60					
Arg	Leu	Pro	Arg	Gln	Asp	Ala	Leu	Val	Leu	Glu	Gly	Val	Arg	Ile	Gly

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65          70          75          80
Ser Glu Ala Asp Pro Ala Pro Leu Leu Gly Gly Arg Leu Leu Leu Met
          85          90          95
Asp Val Val Asp Ala Glu Gln Glu Ala Pro Ala Asp Gly Trp Ile Ala
          100          105          110
Val Ala Tyr Val Gly Lys Glu Gln Ala Ala Gln Phe His Gln Glu Asn
          115          120          125
Lys Gly Ser Gly Pro Gln Ala Tyr Pro Lys Ala Leu Val Gln Gln Met
          130          135          140
Arg Arg Ala Leu Phe Leu Gly Ala Ser Ala Leu Leu Leu Leu Ile Leu
          145          150          155          160
Asn His Asn Val Val Arg Glu Leu Asp Ile Ser Gln Leu Leu Leu Arg
          165          170          175
Pro Val Ile Val Leu His Tyr Ser Ser Asn Val Thr Lys Leu Leu Asp
          180          185          190
Ala Leu Leu Gln Arg Thr Gln Ala Thr Ala Glu Ile Thr Ser Gly Glu
          195          200          205
Ser Leu Ser Ala Asn Ile Glu Trp Lys Leu Thr Leu Trp Thr Thr Cys
          210          215          220
Gly Leu Ser Lys Asp Gly Tyr Gly Gly Trp Gln Asp Leu Val Cys Leu
          225          230          235          240
Gly Gly Ser Arg Ala Gln Glu Gln Lys Pro Leu Gln Gln Leu Trp Asn
          245          250          255
Ala Ile Leu Leu Val Ala Met Leu Leu Cys Thr Gly Leu Val Val Gln
          260          265          270
Ala Gln Arg Gln Ala Ser Arg Gln Ser Gln Arg Glu Leu Gly Gly Gln
          275          280          285
Val Asp Leu Phe Lys Arg Arg Val Val Arg Arg Leu Ala Ser Leu Lys
          290          295          300
Thr Arg Arg Cys Arg Leu Ser Arg Ala Ala Gln Gly Leu Pro Asp Pro
          305          310          315          320
Gly Ala Glu Thr Cys Ala Val Cys Leu Asp Tyr Phe Cys Asn Lys Gln
          325          330          335
Ala Ser Ala Pro Val Ala Pro Gly Ala Ala Leu
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<210> 4919

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 4919

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120
gggcttcttc tcatgggggtc aggcataagc ctgaccaagg tgccagctat tcaacagaaa
180
agaacggttg cttttctaaa ccaatttgtg gtgcacactg tacagttcct caaccgcttt
240
tctacagttt gtgaggagaa actggcagac ctttcacttc gtatccaaca aattgaaaca
300
actctcaata ttttagatgc aaagtgtgca tctatcccag gcctagatga tgtcacagtt
360

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gaagtatctc ctttaaagt caccagtgtc acaaattggag cacatcctga agccacttca
 420
 gagcaaccac agcagaacag tacacaagac tctggactac aggaaagtga agtatcagca
 480
 gaaaatatct taactgtagc caaggatcca agatatgcca gatattctcaa aatgggtcaa
 540
 gtgggtgtac cagtgtggc aataagaaac aaaatgatat cagaaggact agaccagat
 600
 cttcttgaga ggccagatgc tccagtgcct gatggcgaaa gtgagaaaac tgtagaagaa
 660
 agttcagata gcgaatcttc ttttagtgat taagcttaat tttgataaga attacatatg
 720
 catgcatagg ggtacattta cattctgtaa gagattgagc ctgaactctc ttagtcataa
 780
 aaacatcaaa tggccacatg tccactacca agcttcttct atgttaaaaa aataataata
 840
 aagcagtttt aacctgccc gtatgtcttg ttgctaaaat aanggccctc aaattgaaaa
 900
 ttnggatacc ctaaataaag taccaattag tgctccaaat actaagatag aatatttttag
 960
 agatgcaatg agcaattaca gtcaggcacg ggtgtgcacg cctgtaatcc cagcactttg
 1020
 ggaggccgag gcgagtggat aacctgaggt caggagttca agaccagcct ggccaacatg
 1080
 gtgaaacctc catctctact aaaaatacaa aaagtagctg ggcgtgggtga caaaaattag
 1140
 ctgggcgtag tggcaggtgc ctgtaatccc agctactcgg gaagctgagg caggagaatc
 1200
 acttgaaccc agaaggtaaa ggtttcagtg agctgagatt gcgtcattgc actccagcca
 1260
 tggcgacaag agtgaaactc tgtcttaaaa ataaaaagag atgcaatgag caatttttaa
 1320
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 1362

<210> 4920

<211> 194

<212> PRT

<213> Homo sapiens

<400> 4920

Met	Asp	Glu	Asp	Gly	Leu	Pro	Leu	Met	Gly	Ser	Gly	Ile	Asp	Leu	Thr
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Lys	Val	Pro	Ala	Ile	Gln	Gln	Lys	Arg	Thr	Val	Ala	Phe	Leu	Asn	Gln
			20					25					30		
Phe	Val	Val	His	Thr	Val	Gln	Phe	Leu	Asn	Arg	Phe	Ser	Thr	Val	Cys
		35				40					45				
Glu	Glu	Lys	Leu	Ala	Asp	Leu	Ser	Leu	Arg	Ile	Gln	Gln	Ile	Glu	Thr
		50				55					60				
Thr	Leu	Asn	Ile	Leu	Asp	Ala	Lys	Leu	Ser	Ser	Ile	Pro	Gly	Leu	Asp
65					70					75				80	
Asp	Val	Thr	Val	Glu	Val	Ser	Pro	Leu	Asn	Val	Thr	Ser	Val	Thr	Asn
				85					90					95	
Gly	Ala	His	Pro	Glu	Ala	Thr	Ser	Glu	Gln	Pro	Gln	Gln	Asn	Ser	Thr

	100		105		110
Gln	Asp	Ser	Gly	Leu	Gln
	115		120		125
Thr	Val	Ala	Lys	Asp	Pro
	130		135		140
Val	Gly	Val	Pro	Val	Met
	145		150		155
Leu	Asp	Pro	Asp	Leu	Leu
	165		170		175
Glu	Ser	Glu	Lys	Thr	Val
	180		185		190
Ser	Asp				

<210> 4921

<211> 1272

<212> DNA

<213> Homo sapiens

<400> 4921

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120
tcttccccgt tgcccctttg gggcgggatg gctgcggaag aagaagacga ggtggagtgg
180
gtagtggaga gcacgcggg gctcctgcga ggcccagact ggtccatccc catcttggac
240
tttgtggaac agaaatgtga agtttttgat gatgaagaag aaagcaaatt gacctataca
300
gagattcatc aggaatacaa agaactagtt gaaaagctgt tagaagggtta cctcaaagaa
360
attggaatta atgaagatca atttcaagaa gcatgcactt ctctcttgc aaagacccat
420
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480
atgatgggtcc agaaaaacat tgaaatgcag ctgcaagcca ttcgaataat tcaagagaga
540
aatgggtgat tacctgactg cttaaccgat ggctctgatg tggtcagtga ccttgaacac
600
gaagagatga aaatcctgag ggaagtctt agaaaatcaa aagaggaata tgaccaggaa
660
gaagaaagga agaggaaaaa acagtatatca gaggctaaaa cagaagagcc cacagtgcac
720
tccagtgaag ctgcaataat gaataattcc caaggggatg gtgaacattt tgcacacca
780
ccctcagaag ttaaaatgca ttttgctaag cagtcaatag aacctttggg aagaaaagtg
840
gaaagggtctg aaacttcctc cctcccacaa aaaggcctga agattcctgg cttagagcat
900
gcgagcattg aaggaccaat agcaaaactta tcagtacttg gaacagaaga acttcggcaa
960
cgagaacact atctcaagca gaagagagat aagttgatgt ccatgagaaa ggatatgagg
1020

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actaaacaga tacaaaatat ggagcagaaa ggaaaaccca ctggggaggt agaggaaatg
 1080
 acagagaaac cagaaatgac agcagaggag aagcaaacat tactaaagag gagattgctt
 1140
 gcagagaaac tcaaagaaga agttattaat aagtaataat taagaacaat ttaacaaaat
 1200
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 1260
 aaaaaataaa aa
 1272

<210> 4922
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 4922
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 Ala Gly Leu Leu Arg Gly Pro Asp Trp Ser Ile Pro Ile Leu Asp Phe
 20 25 30
 Val Glu Gln Lys Cys Glu Val Phe Asp Asp Glu Glu Glu Ser Lys Leu
 35 40 45
 Thr Tyr Thr Glu Ile His Gln Glu Tyr Lys Glu Leu Val Glu Lys Leu
 50 55 60
 Leu Glu Gly Tyr Leu Lys Glu Ile Gly Ile Asn Glu Asp Gln Phe Gln
 65 70 75 80
 Glu Ala Cys Thr Ser Pro Leu Ala Lys Thr His Thr Ser Gln Ala Ile
 85 90 95
 Leu Gln Pro Val Leu Ala Ala Glu Asp Phe Thr Ile Phe Lys Ala Met
 100 105 110
 Met Val Gln Lys Asn Ile Glu Met Gln Leu Gln Ala Ile Arg Ile Ile
 115 120 125
 Gln Glu Arg Asn Gly Val Leu Pro Asp Cys Leu Thr Asp Gly Ser Asp
 130 135 140
 Val Val Ser Asp Leu Glu His Glu Glu Met Lys Ile Leu Arg Glu Val
 145 150 155 160
 Leu Arg Lys Ser Lys Glu Glu Tyr Asp Gln Glu Glu Glu Arg Lys Arg
 165 170 175
 Lys Lys Gln Leu Ser Glu Ala Lys Thr Glu Glu Pro Thr Val His Ser
 180 185 190
 Ser Glu Ala Ala Ile Met Asn Asn Ser Gln Gly Asp Gly Glu His Phe
 195 200 205
 Ala His Pro Pro Ser Glu Val Lys Met His Phe Ala Asn Gln Ser Ile
 210 215 220
 Glu Pro Leu Gly Arg Lys Val Glu Arg Ser Glu Thr Ser Ser Leu Pro
 225 230 235 240
 Gln Lys Gly Leu Lys Ile Pro Gly Leu Glu His Ala Ser Ile Glu Gly
 245 250 255
 Pro Ile Ala Asn Leu Ser Val Leu Gly Thr Glu Glu Leu Arg Gln Arg
 260 265 270
 Glu His Tyr Leu Lys Gln Lys Arg Asp Lys Leu Met Ser Met Arg Lys
 275 280 285
 Asp Met Arg Thr Lys Gln Ile Gln Asn Met Glu Gln Lys Gly Lys Pro

290 295 300
 Thr Gly Glu Val Glu Glu Met Thr Glu Lys Pro Glu Met Thr Ala Glu
 305 310 315 320
 Glu Lys Gln Thr Leu Leu Lys Arg Arg Leu Leu Ala Glu Lys Leu Lys
 325 330 335
 Glu Glu Val Ile Asn Lys
 340

<210> 4923
 <211> 765
 <212> DNA
 <213> Homo sapiens

<400> 4923
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 120
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 180
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 240
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 300
 ccgtcctcag ggatcatcag gccatctggg gagaggtaa ccagcaggcc cagctggcgg
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 420
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 480
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 600
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 660
 tcccggcaga tttctcaagg ggaagataaa atgactaaga ggaagaagct gcggacctca
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 gctcccctga tgaggaaaca ggatctcctt gccggctcct ccgtc
 765

<210> 4924
 <211> 255
 <212> PRT
 <213> Homo sapiens

<400> 4924
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 Val Gly Ser Leu Lys Pro Ser Ala Pro Xaa Pro Arg Thr Ser Phe Ser
 20 25 30
 Ser Ala Ser Arg Ser Ser Ser Ala Ser Lys Ser Ser Ser Val Pro
 35 40 45
 Ser Ser Ser Ser Ser Ser Gly Ser Leu Met His Arg Leu Ala Ile Phe

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      50              55              60
Ser Met Ala Ser Ile Gly Lys Gly Pro Leu Pro Leu Ser Phe Ser Arg
65              70              75              80
Ala Gly Gly Trp Pro Pro Thr Lys Ala Lys Asn Ser Ala Ser Ser Ser
      85              90              95
Ser Ser Leu Ala Pro Ser Ser Gly Ile Ile Arg Pro Ser Gly Glu Arg
      100             105             110
Ser Thr Ser Arg Pro Ser Trp Arg Ala Ala Ala Ala Pro Leu Pro Gly
      115             120             125
Gly Pro Gly Gly Pro Ser Ser Cys Ala Ser Ser Arg Leu Asp Ala Arg
      130             135             140
Thr Thr Cys Pro Gln Ala Arg Pro Cys Pro Ala Pro Ser Pro Gly Ser
145             150             155             160
Val Ala Ala His Ser Pro Phe Leu Ser Pro Ala Leu Leu Val Gly Ala
      165             170             175
Leu Arg Pro Val Asp Pro Glu Pro Ser Leu Pro Cys Leu Ala Val Pro
      180             185             190
Leu Pro Pro Arg Ala Ser Gly Ala Ala Ala Pro Xaa Ser Ala Ala Ser
      195             200             205
Trp Ala Arg Arg Gly Leu Pro Ser Arg Asn Tyr Asn Ser Arg Gln Ile
      210             215             220
Ser Gln Gly Glu Asp Lys Met Thr Lys Arg Lys Lys Leu Arg Thr Ser
225             230             235             240
Ala Pro Leu Met Arg Lys Gln Asp Leu Pro Ala Gly Ser Ser Val
      245             250             255

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<210> 4925
 <211> 374
 <212> DNA
 <213> Homo sapiens

<400> 4925
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 ggatcggatg aaaatgaaat ggaagaacat gaactcaaag atgaggagga tggtaaagac
 120
 agtgatgagg ccgaggacgc tgagctctat gatgaccttt actgccagc atgtgacaaa
 180
 tcgttcaaga cagaaaaggc catgaagaat cacgagaagt caaagaagca tcgggaaatg
 240
 gtggccttgc taaaacaaca gctggaggag gaagaagaaa atttttcaag acctcaaatt
 300
 gatgaaaatc cattagatga caattctgag gaagaaatgg aagatgcacc aaaacaaaag
 360
 ctttctaaaa aaaa
 374

<210> 4926
 <211> 124
 <212> PRT
 <213> Homo sapiens

<400> 4926
 Ala Asn Leu Glu Lys Glu Leu Gln Glu Met Glu Ala Arg Tyr Glu Lys

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      1             5             10             15
Glu Phe Gly Asp Gly Ser Asp Glu Asn Glu Met Glu Glu His Glu Leu
      20             25             30
Lys Asp Glu Glu Asp Gly Lys Asp Ser Asp Glu Ala Glu Asp Ala Glu
      35             40             45
Leu Tyr Asp Asp Leu Tyr Cys Pro Ala Cys Asp Lys Ser Phe Lys Thr
      50             55             60
Glu Lys Ala Met Lys Asn His Glu Lys Ser Lys Lys His Arg Glu Met
      65             70             75             80
Val Ala Leu Leu Lys Gln Gln Leu Glu Glu Glu Glu Glu Asn Phe Ser
      85             90             95
Arg Pro Gln Ile Asp Glu Asn Pro Leu Asp Asp Asn Ser Glu Glu Glu
      100             105             110
Met Glu Asp Ala Pro Lys Gln Lys Leu Ser Lys Lys
      115             120

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<210> 4927

<211> 1649

<212> DNA

<213> Homo sapiens

<400> 4927

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<210> 4934

<211> 181

<212> PRT

<213> Homo sapiens

<400> 4934

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			20					25					30		
Ala	Tyr	Ile	Glu	Ser	Gln	Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Ile
		35				40						45			
Ile	Pro	Pro	Lys	Glu	Trp	Lys	Pro	Arg	Gln	Thr	Tyr	Asp	Asp	Ile	Asp
	50					55					60				
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65					70					75				80	
Gly	Leu	Phe	Thr	Gln	Tyr	Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Gly
			85						90					95	
Glu	Tyr	Arg	Arg	Leu	Ala	Asn	Ser	Glu	Lys	Tyr	Cys	Thr	Pro	Arg	His
			100						105					110	
Gln	Asp	Phe	Asp	Asp	Leu	Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe
		115					120					125			
Val	Ser	Pro	Ile	Tyr	Gly	Ala	Asp	Ile	Ser	Gly	Ser	Leu	Tyr	Asp	Asp
		130				135						140			
Val	Ser	Met	Arg	Leu	Arg	Gly	Arg	Thr	Gly	Thr	Ser	Phe	Leu	Val	Gly
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<210> 4935
 <211> 1668
 <212> DNA
 <213> Homo sapiens

<400> 4935

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1440

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<210> 4936
 <211> 337
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Gly Glu Asp Asp Leu Val Thr Val Trp Ser Phe Val Asp Cys Arg
 50 55 60
 Val Ile Ala Arg Gly His Gly His Lys Ser Trp Val Ser Val Val Ala
 65 70 75 80
 Phe Asp Pro Tyr Thr Thr Ser Val Glu Glu Gly Asp Pro Met Glu Phe
 85 90 95
 Ser Gly Ser Asp Glu Asp Phe Gln Asp Leu Leu His Phe Gly Glu Ile
 100 105 110
 Glu Gln Ile Val His Ser Pro Gly Ser Pro Asn Gly Thr Leu Gln Thr
 115 120 125
 Ala Ala Pro Ser Val Thr Tyr Arg Phe Gly Ser Val Gly Gln Asp Thr
 130 135 140
 Gln Leu Cys Leu Trp Asp Leu Thr Glu Asp Ile Leu Phe Pro His Gln
 145 150 155 160
 Pro Leu Ser Arg Ala Arg Thr His Thr Asn Val Met Asn Ala Thr Ser
 165 170 175
 Pro Pro Ala Gly Ser Asn Gly Asn Ser Val Thr Thr Pro Gly Asn Ser
 180 185 190
 Val Pro Pro Pro Leu Pro Arg Ser Asn Ser Leu Pro His Ser Ala Val
 195 200 205
 Ser Asn Ala Gly Ser Lys Ser Ser Val Met Asp Gly Ala Ile Ala Ser
 210 215 220
 Gly Val Ser Lys Phe Ala Thr Leu Ser Leu His Asp Arg Lys Glu Arg
 225 230 235 240
 His His Glu Lys Asp His Lys Arg Asn His Ser Met Gly His Ile Ser
 245 250 255
 Ser Lys Ser Ser Asp Lys Leu Asn Leu Val Thr Lys Thr Lys Thr Asp
 260 265 270
 Pro Ala Lys Thr Leu Gly Thr Pro Leu Cys Pro Arg Met Glu Asp Val
 275 280 285
 Pro Leu Leu Glu Pro Leu Ile Cys Lys Lys Ile Ala His Glu Arg Leu
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 Thr Val Leu Ile Phe Leu Glu Asp Cys Ile Val Thr Ala Cys Gln Glu

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 Trp Ala Leu Tyr Lys Gln Arg Glu Ala Pro Glu Leu Val
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<210> 4939

<211> 730

<212> DNA

<213> Homo sapiens

<400> 4939

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<210> 4940

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4940

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 20 25 30
 Ala Asp Ser Ser Ala Ser Thr Arg Pro Pro Gln Gly Pro Pro Ser Leu
 35 40 45
 Asp Ser Lys Ala Ser Thr Trp Leu Pro Leu Pro Val Thr Ser Ser Ser
 50 55 60
 Ala Glu Pro Ser Arg Pro Asn Ser Cys Pro Pro Ala Cys Ser Pro Ala
 65 70 75 80
 Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro Ser Ala Pro

	85		90		95										
Ser	Lys	Ala	Ser	Pro	Ala	Pro	Ala	Ala	Leu	Met	Cys	Gly	Thr	Thr	Ser
	100					105						110			
Pro	Pro	Ile	Ile	Pro	Ala	Ala	Thr	Glu	Pro	Val	Cys	Ala	Ser	Ser	Arg
	115					120						125			
Ser	Gly	Arg	Pro	Thr	Ala	Thr	Ala	Cys	Ser	Leu	Gln	Pro	Leu	Leu	Asp
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<210> 4941

<211> 1718

<212> DNA

<213> Homo sapiens

<400> 4941

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1140

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<210> 4942

<211> 469

<212> PRT

<213> Homo sapiens

<400> 4942

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			20					25					30		
Pro	Pro	Lys	Asp	Thr	Lys	Lys	Gly	Ala	Gln	Pro	Ser	Pro	Phe	Val	Pro
		35					40					45			
Val	Arg	Trp	Val	Val	Lys	Val	Val	Lys	Thr	Leu	Leu	Leu	Arg	Met	Gly
	50					55				60					
Cys	Ser	Tyr	Glu	Thr	Thr	Phe	Leu	Glu	Asp	Gln	Gly	Gly	Trp	Glu	Leu
65					70				75					80	
Met	Glu	Gln	Val	Glu	Ser	His	His	Arg	Gly	Val	Ala	Leu	Leu	Ala	Arg
			85					90					95		
Ala	Met	Val	Gln	Tyr	Ser	Cys	Gln	Glu	Leu	Cys	Arg	Ile	Leu	Tyr	Leu
		100						105					110		
Leu	Ile	Pro	Leu	Leu	Glu	Arg	Gly	Asp	Glu	Lys	His	Arg	Ile	Thr	Ala
	115						120					125			
Thr	Ala	Phe	Phe	Val	Glu	Leu	Leu	Gln	Met	Glu	Gln	Val	Arg	Arg	Ile
	130					135				140					
Pro	Glu	Glu	Tyr	Ser	Leu	Gly	Arg	Met	Ala	Glu	Gly	Leu	Ser	His	His
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			165					170					175		
Arg	Arg	Ser	Glu	Lys	Thr	Ala	Lys	Val	Lys	Ala	Leu	Leu	Pro	Ser	Met
		180						185					190		
Val	Lys	Gly	Leu	Lys	Asn	Met	Asp	Gly	Met	Leu	Val	Val	Glu	Ala	Val
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His	Asn	Leu	Lys	Ala	Val	Phe	Lys	Gly	Arg	Asp	Gln	Lys	Leu	Met	Asp

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Asp Ala Arg Glu Val Val Arg Ser Ser Cys Ile Asn Leu Tyr Gly Lys
      245              250              255
Val Val Gln Lys Leu Arg Ala Pro Arg Thr Gln Ala Met Glu Glu Gln
      260              265              270
Leu Val Ser Thr Leu Val Pro Leu Leu Leu Thr Met Gln Glu Gly Asn
      275              280              285
Ser Lys Val Ser Gln Lys Cys Val Lys Thr Leu Leu Arg Cys Ser Tyr
      290              295              300
Phe Met Ala Trp Glu Leu Pro Lys Arg Ala Tyr Ser Arg Lys Pro Trp
305              310              315              320
Asp Asn Gln Gln Gln Thr Val Ala Lys Ile Cys Lys Cys Leu Val Asn
      325              330              335
Thr His Arg Asp Ser Ala Phe Ile Phe Leu Ser Gln Ser Leu Glu Tyr
      340              345              350
Ala Lys Asn Ser Arg Ala Ser Leu Arg Lys Cys Ser Val Met Phe Ile
      355              360              365
Gly Ser Leu Val Pro Cys Met Glu Ser Ile Met Thr Glu Asp Arg Leu
      370              375              380
Asn Glu Val Lys Ala Ala Leu Asp Asn Leu Arg His Asp Pro Glu Ala
385              390              395              400
Ser Val Cys Ile Tyr Ala Ala Gln Val Gln Asp His Ile Leu Ala Ser
      405              410              415
Cys Trp Gln Asn Ser Trp Leu Pro His Gly Asn Ser Trp Val Cys Tyr
      420              425              430
Ser Ala Thr Thr His Arg Trp Ser Pro Ser Cys Glu Asn Leu Pro Thr
      435              440              445
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<210> 4943

<211> 1020

<212> DNA

<213> Homo sapiens

<400> 4943

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420

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<211> 106

<212> PRT

<213> Homo sapiens

<400> 4944

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Arg	Leu	Phe	Gly	Glu	Val	Thr	Arg	Pro	Thr	Asn	Ser	Lys	Ser	Met	Lys
		20						25				30			
Val	Val	Lys	Leu	Phe	Ser	Glu	Leu	Pro	Leu	Ala	Lys	Lys	Lys	Glu	Thr
		35					40					45			
Tyr	Asp	Trp	Tyr	Pro	Asn	His	His	Thr	Tyr	Ala	Glu	Leu	Met	Gln	Thr
	50					55				60					
Leu	Arg	Phe	Leu	Gly	Leu	Tyr	Arg	Asp	Glu	His	Gln	Asp	Phe	Met	Asp
65					70				75					80	
Glu	Gln	Lys	Arg	Leu	Lys	Lys	Leu	Arg	Gly	Lys	Glu	Lys	Pro	Lys	Lys
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Gly	Glu	Gly	Lys	Arg	Ala	Ala	Lys	Arg	Lys						
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<210> 4945

<211> 1792

<212> DNA

<213> Homo sapiens

<400> 4945

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1792

<210> 4946
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 4946
 Thr Ser Asn Asn Ala Pro Pro Leu Asn Leu Glu Asp Lys Leu Gln Arg
 1 5 10 15
 Gly Leu Lys Gly Lys Gln Glu Phe Trp Gln Gln Cys Val Ser Phe Ile
 20 25 30
 Pro Pro Gly Gln Glu Tyr Arg Met Tyr Asn Thr Tyr Asp Val His Phe
 35 40 45
 Tyr Ala Ser Phe Ala Leu Ile Met Leu Trp Pro Lys Leu Glu Leu Ser
 50 55 60
 Leu Gln Tyr Asp Met Ala Leu Ala Thr Leu Arg Glu Asp Leu Thr Arg
 65 70 75 80
 Arg Arg Tyr Leu Met Ser Gly Val Met Ala Pro Val Lys Arg Arg Asn
 85 90 95
 Val Ile Pro His Asp Ile Gly Asp Pro Asp Asp Glu Pro Trp Leu Arg
 100 105 110
 Val Asn Ala Tyr Leu Ile His Asp Thr Ala Asp Trp Lys Asp Leu Asn
 115 120 125
 Leu Lys Phe Val Leu Gln Val Tyr Arg Asp Tyr Tyr Leu Thr Gly Asp
 130 135 140
 Gln Asn Phe Leu Lys Asp Met Trp Pro Val Cys Leu Val Arg Asp Ala
 145 150 155 160
 His Ala Val Ala Ser Val Pro Gly Val Trp Leu Val Ser Gly Lys Ser
 165 170 175
 Leu Ala Gly Cys Cys Leu Ser Ser Val Pro Arg Ser Ser Thr Ser Trp
 180 185 190
 Ser Leu Ser Arg Leu
 195

<210> 4947
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 4947
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 180
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 300
 acagagtgaag agtacacccg aagtgagagg gactcagaca tcttgtgtcc tttgctcagc
 360
 tggaagacta ctaagcacgt agtttcagtc attcagttga tagacatttg aacacttatg
 420

gtggtgccta accccaggcc gagtgtgact cattccacct tgcagttaaa gcagtggaaag
480
tgcacgtatg aggccctcaa ctgccttcct gattcagcat agtgttttct tctgggctgc
540
ttcactaaga gaaaacctta cagccaatcc aggacctctc tgatcacctc ccagtggaat
600
gtagcattgg taaagtggaa ggaccttgtt ctgtttgtca gtaggagctg atgtgtgtga
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720
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780
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840
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900
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960
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1020
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1140
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1200
gacacttggc gcttcctgga aaaccgggtt aatgatgcaa tgaacatggg ccacactgcc
1260
aagcaggtaa agtccacagg agaggcactg gtgcaaggac tcatgggtgc agcagtgcg
1320
ctcaagaact tgacangtct aaaccagcgt cggtgagagg aaggggtata agctacaatg
1380
cctagaagag aatgagcgga cagattgaaa gagctttgaa aagtataagg tgccatccac
1440
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1500
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1560
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1620
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1680
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1740
tctgacgcca cctcaagggt acagctcatc tccagcacag cacaggcgtg tgcacacaga
1800
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tcagaaaact gcctcacctg agacaagtgc ctgctggaca gaggtgtgat tccaggcctg
1920
gtgtcacatg acaccagcat gcattgcagg attattagtg tattttgagt ctgtaaaaat
1980
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2040

aaaaaaaaaa aaaaaaaaaa
2060

<210> 4948
<211> 127
<212> PRT
<213> Homo sapiens

<400> 4948
Ala Glu Leu Thr Pro Leu Pro Phe Ser Leu Gln Ala Leu Ser Ile Leu
1 5 10 15
Met Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met
20 25 30
Val Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn
35 40 45
Trp Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu
50 55 60
Leu Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg
65 70 75 80
Phe Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala
85 90 95
Lys Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly
100 105 110
Ala Ala Val Thr Leu Lys Asn Leu Thr Xaa Leu Asn Gln Arg Arg
115 120 125

<210> 4949
<211> 1259
<212> DNA
<213> Homo sapiens

<400> 4949
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gacaagtta accaggggat ggtggacacc gcaaagaaga actttggcgg cggaacacg
120
gcttggggagg aaaagacgct gtccaagtac gaggccagcg agattcgctt gctggagatc
180
ctggagggggc tgtgcgagag cagcgacttc gaatgcaatc agatgctaga ggcgaggag
240
gagcacctgg aggcctgggtg gctgcagctg aagagcgaat atcctgactt attcgagtgg
300
ttttgtgtga agacactgaa agtgtgctgc tctccaggaa cctacggtcc cgactgtctc
360
gcatgccagg gcggatccca gaggccctgc agcggaatg gccactgcag cggagatggg
420
agcagacagg gcgacgggtc ctgccgggtc cacatggggt accagggccc gctgtgcact
480
gactgcatgg acggctactt cagctcgctc cggaacgaga cccacagcat ctgcacagcc
540
tgtgacgagt cctgcaagac gtgctcgggc ctgaccaaca gagactgcgg cgagtgtgaa
600
gtgggctggg tgctggacga gggcgctgtg gtggatgtgg acgagtgtgc ggccgagccg
660

cctccctgca gcgctgcgca gttctgtaag aacgccaacg gtcctacac gtgcgaagag
 720
 tgtgactcca gctgtgtggg ctgcacaggg gaaggcccag gaaactgtaa agagtgtatc
 780
 tctggctacg cgaggagca cggacagtgt gcagatgtgg acgagtgtc actagcagaa
 840
 aaaacctgtg tgaggaaaaa cgaaaactgc tacaatactc caggagcta cgtctgtgtg
 900
 tgtcctgacg gcttcgaaga anacggaaga tgcctgtgtg ccgccggcag aggctgaagc
 960
 cacagaagga gaaagcccga cacagctgcc ctcccgcgaa gacctgtaat gtgccggact
 1020
 taccctttaa attattcaga aggatgtccc gtggaaaatg tggccctgag gatgccgtct
 1080
 cctgcagtgg acagcggcgg ggagaggctg cctgctctct aacggttgat tctcatttgt
 1140
 cctttaaaca gctgcatttc ttggttggtc ttaaacagac ttgtatattt tgatacagtt
 1200
 ctttgaata aaattgacca ttgtaggtaa tcaggaggaa aaaaaaaaaa aaaaaaaaaa
 1259

<210> 4950

<211> 318

<212> PRT

<213> Homo sapiens

<400> 4950

Xaa	Pro	Ala	Cys	Pro	Pro	Gly	Tyr	Leu	Thr	Ala	Pro	Cys	His	Arg	Cys
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Arg	Gly	Leu	Val	Asp	Lys	Phe	Asn	Gln	Gly	Met	Val	Asp	Thr	Ala	Lys
			20					25						30	
Lys	Asn	Phe	Gly	Gly	Gly	Asn	Thr	Ala	Trp	Glu	Glu	Lys	Thr	Leu	Ser
		35					40					45			
Lys	Tyr	Glu	Ser	Ser	Glu	Ile	Arg	Leu	Leu	Glu	Ile	Leu	Glu	Gly	Leu
		50					55					60			
Cys	Glu	Ser	Ser	Asp	Phe	Glu	Cys	Asn	Gln	Met	Leu	Glu	Ala	Gln	Glu
65					70					75					80
Glu	His	Leu	Glu	Ala	Trp	Trp	Leu	Gln	Leu	Lys	Ser	Glu	Tyr	Pro	Asp
				85					90					95	
Leu	Phe	Glu	Trp	Phe	Cys	Val	Lys	Thr	Leu	Lys	Val	Cys	Cys	Ser	Pro
			100					105					110		
Gly	Thr	Tyr	Gly	Pro	Asp	Cys	Leu	Ala	Cys	Gln	Gly	Gly	Ser	Gln	Arg
		115					120					125			
Pro	Cys	Ser	Gly	Asn	Gly	His	Cys	Ser	Gly	Asp	Gly	Ser	Arg	Gln	Gly
		130				135					140				
Asp	Gly	Ser	Cys	Arg	Cys	His	Met	Gly	Tyr	Gln	Gly	Pro	Leu	Cys	Thr
145					150					155					160
Asp	Cys	Met	Asp	Gly	Tyr	Phe	Ser	Ser	Leu	Arg	Asn	Glu	Thr	His	Ser
				165					170					175	
Ile	Cys	Thr	Ala	Cys	Asp	Glu	Ser	Cys	Lys	Thr	Cys	Ser	Gly	Leu	Thr
			180					185					190		
Asn	Arg	Asp	Cys	Gly	Glu	Cys	Glu	Val	Gly	Trp	Val	Leu	Asp	Glu	Gly
		195					200					205			
Ala	Cys	Val	Asp	Val	Asp	Glu	Cys	Ala	Ala	Glu	Pro	Pro	Pro	Cys	Ser

210	215	220
Ala Ala Gln Phe Cys Lys Asn Ala Asn Gly Ser Tyr Thr Cys Glu Glu		
225	230	235
Cys Asp Ser Ser Cys Val Gly Cys Thr Gly Glu Gly Pro Gly Asn Cys		240
	245	250
Lys Glu Cys Ile Ser Gly Tyr Ala Arg Glu His Gly Gln Cys Ala Asp		255
	260	265
Val Asp Glu Cys Ser Leu Ala Glu Lys Thr Cys Val Arg Lys Asn Glu		270
	275	280
Asn Cys Tyr Asn Thr Pro Gly Ser Tyr Val Cys Val Cys Pro Asp Gly		285
	290	295
Phe Glu Glu Xaa Gly Arg Cys Leu Cys Ala Ala Gly Arg Gly		300
305	310	315

<210> 4951
 <211> 1835
 <212> DNA
 <213> Homo sapiens

<400> 4951
 ngagctctgg cgctcagctg gccccaccca ctctcacctg ccgcctgggc tcgctcccgg
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 cttctctcca gccgtcgact ccacgcctcg cgctctctgc gagaggagga ggctccacgg
 120
 agcgacgact tccgccctcc ttagggccgt ggtcccgtag ctaccggctg cgtcgccgtg
 180
 ggcgacgtgc ccgcttccaa aatggcggcg gcggcggtat ctggtgcgct tggccggggc
 240
 ggctggagga tcctgcagct gcgatgcctg cccgtggccc gttgccgaca agccctgggt
 300
 ccgcgtgcct tccatgcttc agctgtgggg ctaaggctct cagatgagca gaagcagcag
 360
 cctcccaact cattttctca gcagcattct gagacacagg gggcagaaaa acctgatcca
 420
 gagtcttctc attcaccccc caggtataca gaccagggcg gcgaggagga ggaggactat
 480
 gaaagtgagg agcagttgca gcaccgcac ctgacggcag cccttgagtt tgtgcccggc
 540
 cacgggtgga cagcagagga gattgcagaa ggagcccagt ctctgggtct ctccagtgca
 600
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 660
 aatacccgcc tcacacgtgt gctagaagag gagcagaagc tggtagagtt gggccaggcg
 720
 gagaagagga agacagacca gttcctgagg gatgcagtg aaaccagact gagaatgctg
 780
 atcccatata ttgagcactg gccccgggcc ctacgcatcc tcatgctccc tcacaacatc
 840
 ccgtccagcc tgagcctgct caccagcatg gtggatgaca tgtggcatta cgctggggac
 900
 cagtccactg attttaactg gtacaccgc cgagccatgc tggctgccat ctacaacaca
 960
 acagagctgg tgatgatgca ggactcctct ccagactttg aggacacttg gcgcttcctg
 1020

gaaaaccggg ttaatgatgc aatgaacatg ggccacactg ccaagcaggt aaagtccaca
 1080
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 1140
 ctaaaccagc gtcggtgaga ggaaggggta taagctacaa tgcctagaag agaattgagcg
 1200
 gacagattga aagagctttg aaaagtataa ggtgccatcc acataacctg gtgttcacga
 1260
 gaacacacta aaggactcct gagtcactac cacagccacc tggaaaccac aaggcatttg
 1320
 atgctaccgt tctggtcagg gattgggctg cttcttcagt tcctaatacc agaccaagcc
 1380
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 1440
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 1500
 taaccttccc ttaaccttgg ggctcccaag ccagagtcaa ggtctgacgc cacctcaagg
 1560
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 1620
 ctccctctca ggtgtcctga gatgctgctc ctgggagccc cctcagaaaa ctgcctcacc
 1680
 tgagacaagt gcctgctgga cagaggtgtg attccaggcc tgggtgtcaca tgacaccagc
 1740
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 1800
 agttaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaa
 1835

<210> 4952
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 4952
 Met Ala Ala Ala Ala Val Ser Gly Ala Leu Gly Arg Ala Gly Trp Arg
 1 5 10 15
 Leu Leu Gln Leu Arg Cys Leu Pro Val Ala Arg Cys Arg Gln Ala Leu
 20 25 30
 Val Pro Arg Ala Phe His Ala Ser Ala Val Gly Leu Arg Ser Ser Asp
 35 40 45
 Glu Gln Lys Gln Gln Pro Pro Asn Ser Phe Ser Gln Gln His Ser Glu
 50 55 60
 Thr Gln Gly Ala Glu Lys Pro Asp Pro Glu Ser Ser His Ser Pro Pro
 65 70 75 80
 Arg Tyr Thr Asp Gln Gly Gly Glu Glu Glu Asp Tyr Glu Ser Glu
 85 90 95
 Glu Gln Leu Gln His Arg Ile Leu Thr Ala Ala Leu Glu Phe Val Pro
 100 105 110
 Ala His Gly Trp Thr Ala Glu Ala Ile Ala Glu Gly Ala Gln Ser Leu
 115 120 125
 Gly Leu Ser Ser Ala Ala Ala Ser Met Phe Gly Arg Met Gly Ser Glu
 130 135 140
 Leu Ile Leu His Phe Val Thr Gln Cys Asn Thr Arg Leu Thr Arg Val

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145          150          155          160
Leu Glu Glu Glu Gln Lys Leu Val Gln Leu Gly Gln Ala Glu Lys Arg
          165          170          175
Lys Thr Asp Gln Phe Leu Arg Asp Ala Val Glu Thr Arg Leu Arg Met
          180          185          190
Leu Ile Pro Tyr Ile Glu His Trp Pro Arg Ala Leu Ser Ile Leu Met
          195          200          205
Leu Pro His Asn Ile Pro Ser Ser Leu Ser Leu Leu Thr Ser Met Val
          210          215          220
Asp Asp Met Trp His Tyr Ala Gly Asp Gln Ser Thr Asp Phe Asn Trp
225          230          235          240
Tyr Thr Arg Arg Ala Met Leu Ala Ala Ile Tyr Asn Thr Thr Glu Leu
          245          250          255
Val Met Met Gln Asp Ser Ser Pro Asp Phe Glu Asp Thr Trp Arg Phe
          260          265          270
Leu Glu Asn Arg Val Asn Asp Ala Met Asn Met Gly His Thr Ala Lys
          275          280          285
Gln Val Lys Ser Thr Gly Glu Ala Leu Val Gln Gly Leu Met Gly Ala
          290          295          300
Ala Val Thr Leu Lys Asn Leu Thr Gly Leu Asn Gln Arg Arg
305          310          315

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<210> 4953
 <211> 355
 <212> DNA
 <213> Homo sapiens

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<400> 4953
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gtcagcctgg ggatgcttgg cggcttctcc agtcctggga gcaggcatca cctggccgcg
120
ggtgccccct ggtggcagct tgaaggaagg acgggcagtg ggtcgcagcc agcggggacc
180
taccctcgaa aacgcacata aaagctggaa tcagcttggt acagctgcag gtccctctcg
240
tccgatttgg atagaccctc ttgggaccca ctgcaccagg gaaccccaaa tgcagctcag
300
cagcatggga ggagccctgt ctgctggggg tgtctgggat cgtcggagag aggct
355

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<210> 4954
 <211> 114
 <212> PRT
 <213> Homo sapiens

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<400> 4954
Met Ala Gly Gly Arg Gln Asp Arg Arg Ala Gln Ala Trp Thr Pro Leu
1          5          10          15
Ser Ala Trp Gly Cys Leu Ala Ala Ser Pro Val Leu Gly Ala Gly Ile
20          25          30
Thr Trp Pro Arg Val Pro Pro Gly Gly Ser Leu Lys Glu Gly Arg Ala
35          40          45
Val Gly Arg Ser Gln Arg Gly Pro Thr Pro Gln Asn Ala His Lys Ser

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```

      50              55              60
Trp Asn Gln Leu Val Thr Ala Ala Gly Pro Ser Arg Pro Ile Trp Ile
65              70              75              80
Asp Pro Leu Gly Thr His Cys Thr Arg Glu Pro Gln Met Gln Leu Ser
      85              90              95
Ser Met Gly Gly Ala Leu Ser Ala Gly Gly Val Trp Asp Arg Arg Arg
      100              105              110
Glu Ala

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<210> 4955
 <211> 364
 <212> DNA
 <213> Homo sapiens

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<400> 4955
agatctaagg ccctcgggag agatgggaac tgagcacctg ggtcttagac cggaggagca
60
aactgcaaga caggggtggcc ggggacacca gcctccgccc ttctgtgaca taaggacaag
120
agctcagcct gccaggaac aactctgggc aagagatgtg gaaagaaaga gctcangggg
180
gggcacgcat ggcatcctgg ggggacatct gagggcaccc ccaccacta ttcctccctc
240
caaggtggcc tctgagtgtg aaggcagggg gaagcagaca cctgccctc actctccctc
300
cctaccacat agctaccggg tggggggcgt ccctgggatg attcctgagg gcaggatcca
360
ggggg
364

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<210> 4956
 <211> 114
 <212> PRT
 <213> Homo sapiens

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<400> 4956
Met Gly Thr Glu His Leu Gly Leu Arg Pro Glu Glu Gln Thr Ala Arg
1      5      10      15
Gln Gly Gly Arg Gly His Gln Pro Pro Pro Phe Cys Asp Ile Arg Thr
      20      25      30
Arg Ala Gln Pro Ala Gln Glu Gln Leu Trp Ala Arg Asp Val Glu Arg
      35      40      45
Lys Ser Ser Xaa Gly Gly Thr His Gly Ile Leu Gly Gly His Leu Arg
50      55      60
Ala Pro Pro Pro Thr Ile Pro Pro Ser Lys Val Ala Ser Glu Cys Glu
65      70      75      80
Gly Arg Gly Lys Gln Thr Pro Ala Pro His Ser Pro Ser Leu Pro His
      85      90      95
Ser Tyr Arg Val Gly Gly Val Pro Gly Met Ile Pro Glu Gly Arg Ile
100      105      110
Gln Gly

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<210> 4957
 <211> 872
 <212> DNA
 <213> Homo sapiens

<400> 4957
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 120
 tcttgacaag actgtacagg gcttctcatc atacacaaac cctccacagc ccacggctcc
 180
 aaccacagc acctcctgca gtccctggagg gaaaagggac agtaacatga agtgtctgaa
 240
 gatccatttc acctcttttc catgtgaatc atgacgcttt caatgcattt cttgacagga
 300
 ttctattttg aaagaatgat gctcaatctg taccttttat gcttcttggt tcttctccat
 360
 caataatatg tcagtcaact gcttgtcaga gacacttagc tgctgacagg tcctcataac
 420
 ctgactcagg taaactgcca agagatgctt gcacaggatg ctgtcactct tccgtagcac
 480
 tgagaatgca aatgcaggac atgaacagta atgacaagaa gccaaacatg tgtatgtttt
 540
 actggaactt ccaaggacct ggtaaacacg ccttccactg ggtgatgaga ttaagggtgat
 600
 ggactgtcga tcaactaggt ccaaggcctg ggtggctgat gagccaaaga gaaacttcag
 660
 cgataacaga tattcatcag gaattcggtc ccgtacttcg cgcgctctcc tgcaccgccg
 720
 ccgccatctc gctcaggagc tctccacaa ccgccggcaa ctacggccat cgcgccgag
 780
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 840
 gatcctgacc ccccgccggc ctcgttccga at
 872

<210> 4958
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 4958
 Gln Ile Phe Ile Arg Asn Ser Val Pro Tyr Phe Ala Arg Ser Pro Ala
 1 5 10 15
 Pro Pro Pro Pro Ser Arg Ser Gly Ala Pro Pro Gln Pro Pro Ala Thr
 20 25 30
 Thr Ala Ile Ala Pro Gln Asp Thr Pro Ser Thr Thr Arg Thr Ala Arg
 35 40 45
 Arg Ser Ser
 50

<210> 4959
 <211> 449

<212> DNA

<213> Homo sapiens

<400> 4959

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cagtgggttg gggggcttcc atttgagtt gagggccagg tgtttgggtc cttccatgtg
120
gcagggataa agaggagagc tggcatctgg agtcatgatc tgtctgagag gcagtgcctc
180
cggccaccgt aggatggagg ccagcttcca gccctggctg atgggggaga agcagcgaat
240
tctccagatg tggatggca gacctttgga agattcactc ggcctccact taaccttgtg
300
agaccaaagg ccacagcccc atgtgttctg cgtgctgttg aacatgtttg tatttcattg
360
gcgtggatga taatttggtt gaaaggagag atggtcacca gtggactcag tttaggaagg
420
caciaaggtc aaccttttcc gtttctaga
449

<210> 4960

<211> 115

<212> PRT

<213> Homo sapiens

<400> 4960

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Lys	Val	Lys	Trp	Arg	Pro	Ser	Glu	Ser	Ser	Lys	Gly	Leu	Pro	Tyr	His
		20					25					30			
Ile	Trp	Arg	Ile	Arg	Cys	Phe	Ser	Pro	Ile	Ser	Gln	Gly	Trp	Lys	Leu
		35				40					45				
Ala	Ser	Ile	Leu	Arg	Trp	Pro	Glu	Ala	Leu	Pro	Leu	Arg	Gln	Ile	Met
	50				55				60						
Thr	Pro	Asp	Ala	Ser	Ser	Pro	Leu	Tyr	Pro	Cys	His	Met	Glu	Gly	Pro
65				70					75				80		
Lys	His	Leu	Ala	Leu	Asn	Cys	Lys	Trp	Lys	Pro	Pro	Gln	Pro	Leu	His
			85					90					95		
Gln	Pro	Pro	Ala	Lys	Glu	Thr	Thr	Thr	Thr	Ile	Cys	Ile	Pro	Ser	Leu
			100					105					110		
Asp	Thr	Arg													
			115												

<210> 4961

<211> 4737

<212> DNA

<213> Homo sapiens

<400> 4961

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<210> 4962

<211> 1069

<212> PRT

<213> Homo sapiens

<400> 4962

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Pro Leu Gly Asp Tyr Gly Val Gly Ser Lys Asn Ser Lys Arg Ala Arg
35           40           45
Glu Lys Arg Asp Ser Arg Asn Met Glu Val Gln Val Thr Gln Glu Met
50           55           60
Arg Asn Val Ser Ile Gly Met Gly Ser Ser Asp Glu Trp Ser Asp Val
65           70           75           80
Gln Asp Ile Ile Asp Ser Thr Pro Glu Leu Asp Met Cys Pro Glu Thr
85           90           95
Arg Leu Asp Arg Thr Gly Ser Ser Pro Thr Gln Gly Ile Val Asn Lys
100          105          110
Ala Phe Gly Ile Asn Thr Asp Ser Leu Tyr His Glu Leu Ser Thr Ala
115          120          125
Gly Ser Glu Val Ile Gly Asp Val Asp Glu Gly Ala Asp Leu Leu Gly
130          135          140
Glu Phe Ser Gly Met Gly Lys Glu Val Gly Asn Leu Leu Leu Glu Asn
145          150          155          160
Ser Gln Leu Leu Glu Thr Lys Asn Ala Leu Asn Val Val Lys Asn Asp
165          170          175
Leu Ile Ala Lys Val Asp Gln Leu Ser Gly Glu Gln Glu Val Leu Arg
180          185          190
Gly Glu Leu Glu Ala Ala Lys Gln Ala Lys Val Lys Leu Glu Asn Arg
195          200          205
Ile Lys Glu Leu Glu Glu Glu Leu Lys Arg Val Lys Ser Glu Ala Ile
210          215          220
Ile Ala Arg Arg Glu Pro Lys Glu Glu Ala Glu Asp Val Ser Ser Tyr
225          230          235          240
Leu Cys Thr Glu Ser Asp Lys Ile Pro Met Ala Gln Arg Arg Arg Phe
245          250          255
Thr Arg Val Glu Met Ala Arg Val Leu Met Glu Arg Asn Gln Tyr Lys
260          265          270
Glu Arg Leu Met Glu Leu Gln Glu Ala Val Arg Trp Thr Glu Met Ile
275          280          285
Arg Ala Ser Arg Glu His Pro Ser Val Gln Glu Lys Lys Lys Ser Thr
290          295          300
Ile Trp Gln Phe Phe Ser Arg Leu Phe Ser Ser Ser Ser Ser Pro Pro
305          310          315          320
Pro Ala Lys Arg Pro Tyr Pro Ser Val Asn Ile His Tyr Lys Ser Pro
325          330          335
Thr Thr Ala Gly Phe Ser Gln Arg Arg Asn His Ala Met Cys Pro Ile
340          345          350
Ser Ala Gly Ser Arg Pro Leu Glu Phe Phe Pro Asp Asp Asp Cys Thr
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370          375          380
Glu His Val Arg Asn Asp Asp Gly Arg Leu Gln Ala Cys Gly Trp Ser
385          390          395          400
Leu Pro Ala Lys Tyr Lys Gln Leu Ser Pro Asn Gly Gly Gln Glu Asp
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Thr Arg Met Lys Asn Val Pro Val Pro Val Tyr Cys Arg Pro Leu Val
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Glu Lys Asp Pro Thr Met Lys Leu Trp Cys Ala Ala Gly Val Asn Leu

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      485              490              495
Pro Glu Met Asp Ala Thr Ser Ser Arg Val Trp Ile Leu Thr Ser Thr
      500              505              510
Leu Thr Thr Ser Lys Val Val Ile Ile Asp Ala Asn Gln Pro Gly Thr
      515              520              525
Val Val Asp Gln Phe Thr Val Cys Asn Ala His Val Leu Cys Ile Ser
      530              535              540
Ser Ile Pro Ala Ala Ser Asp Ser Asp Tyr Pro Pro Gly Glu Met Phe
  545              550              555              560
Leu Asp Ser Asp Val Asn Pro Glu Asp Pro Gly Ala Asp Gly Val Leu
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Ala Gly Ile Thr Leu Val Gly Cys Ala Thr Arg Cys Asn Val Pro Arg
      580              585              590
Ser Asn Cys Ser Ser Arg Gly Asp Thr Pro Val Leu Asp Lys Gly Gln
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Gly Glu Val Ala Thr Ile Ala Asn Gly Lys Val Asn Pro Ser Gln Ser
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Thr Glu Glu Ala Thr Glu Ala Thr Glu Val Pro Asp Pro Gly Pro Ser
  625              630              635              640
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      645              650              655
Phe Thr Asp Pro Ala Pro Thr Pro Ser Ser Gly Pro Gln Pro Gly Ser
      660              665              670
Glu Asn Gly Pro Glu Pro Asp Ser Ser Ser Thr Arg Pro Glu Pro Glu
      675              680              685
Pro Ser Gly Asp Pro Thr Gly Ala Gly Ser Ser Ala Ala Pro Thr Met
      690              695              700
Trp Leu Gly Ala Gln Asn Gly Trp Leu Tyr Val His Ser Ala Val Ala
  705              710              715              720
Asn Trp Lys Lys Cys Leu His Ser Ile Lys Leu Lys Asp Ser Val Leu
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Ser Leu Val His Val Lys Gly Arg Val Leu Val Ala Leu Ala Asp Gly
      740              745              750
Thr Leu Ala Ile Phe His Arg Gly Glu Asp Gly Gln Trp Asp Leu Ser
      755              760              765
Asn Tyr His Leu Met Asp Leu Gly His Pro His His Ser Ile Arg Cys
      770              775              780
Met Ala Val Val Tyr Asp Arg Val Trp Cys Gly Tyr Lys Asn Lys Val
  785              790              795              800
His Val Ile Gln Pro Lys Thr Met Gln Ile Glu Lys Ser Phe Asp Ala
      805              810              815
His Pro Arg Arg Glu Ser Gln Val Arg Gln Leu Ala Trp Ile Gly Asp
      820              825              830
Gly Val Trp Val Ser Ile Arg Leu Asp Ser Thr Leu Arg Leu Tyr His
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Ala His Thr His Gln His Leu Gln Asp Val Asp Ile Glu Pro Tyr Val
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 900 905 910
 Gly Gln Leu Leu Gly Leu Arg Ala Asn Lys Thr Ser Pro Thr Ser Gly
 915 920 925
 Glu Gly Ala Arg Pro Gly Gly Ile Ile His Val Tyr Gly Asp Asp Ser
 930 935 940
 Ser Asp Arg Ala Ala Ser Ser Phe Ile Pro Tyr Cys Ser Met Ala Gln
 945 950 955 960
 Ala Gln Leu Cys Phe His Gly His Arg Asp Ala Val Lys Phe Phe Val
 965 970 975
 Ser Val Pro Gly Asn Val Leu Ala Thr Leu Asn Gly Ser Val Leu Asp
 980 985 990
 Ser Pro Ala Glu Gly Pro Gly Pro Ala Ala Pro Ala Ser Glu Val Glu
 995 1000 1005
 Gly Gln Lys Leu Arg Asn Val Leu Val Leu Ser Gly Gly Glu Gly Tyr
 1010 1015 1020
 Ile Asp Phe Arg Ile Gly Asp Gly Glu Asp Asp Glu Thr Glu Glu Gly
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<210> 4963

<211> 1575

<212> DNA

<213> Homo sapiens

<400> 4963

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<210> 4964

<211> 304

<212> PRT

<213> Homo sapiens

<400> 4964

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			20					25					30		
Leu	Leu	Gln	Gln	Glu	Leu	Phe	Gln	Lys	Cys	His	Pro	Val	His	Phe	Leu
		35					40					45			
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		50				55					60				
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65				70					75					80	
Pro	Asn	Tyr	Val	Gln	Asp	Lys	Tyr	Leu	Leu	Gln	Leu	Leu	Arg	Asn	Ala
			85					90					95		
Asp	Asp	Val	Ser	Thr	Trp	Val	Ala	Ala	Glu	Ile	Val	Thr	Ser	His	Thr
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<210> 4965
<211> 1474
<212> DNA
<213> Homo sapiens
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<210> 4966
 <211> 212
 <212> PRT
 <213> Homo sapiens

<400> 4966
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 35 40 45
 Asn Asn Ile Ala Asn Leu Lys Ile Ser Leu Leu Asn Lys Asp Lys Ile
 50 55 60
 Glu Leu Asp Ser Ser Ser Pro Ala Ser Lys Glu Asn Glu Glu Lys Val
 65 70 75 80
 Cys Leu Glu Tyr Asn Glu Glu Leu Glu Lys Leu Cys Glu Glu Leu Gln
 85 90 95
 Ala Thr Leu Asp Gly Leu Thr Lys Ile Gln Val Lys Met Glu Lys Leu
 100 105 110
 Ser Ser Thr Thr Lys Gly Ile Cys Glu Leu Glu Asn Tyr His Tyr Gly
 115 120 125
 Glu Glu Ser Lys Arg Pro Pro Leu Phe His Thr Trp Pro Thr Thr His
 130 135 140
 Phe Tyr Glu Val Ser His Lys Leu Leu Glu Met Tyr Arg Lys Glu Leu
 145 150 155 160
 Leu Leu Lys Arg Thr Val Ala Lys Glu Leu Ala His Thr Gly Asp Pro

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Glu Ser Asp Ser Arg Leu His Leu Glu Ser Met Leu Leu Glu Thr Gly
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His Arg Ala Leu
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<210> 4967
 <211> 550
 <212> DNA
 <213> Homo sapiens

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<400> 4967
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<210> 4968
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 <212> PRT
 <213> Homo sapiens

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<400> 4968
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Leu Asp Leu Gln Asn Ser Trp Xaa Tyr Thr Arg Glu Pro Pro Cys Pro
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Ala Ser Gln
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<210> 4969
 <211> 2911
 <212> DNA
 <213> Homo sapiens

<400> 4969

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<212> DNA

<213> Homo sapiens

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<210> 4976

<211> 298

<212> PRT

<213> Homo sapiens

<400> 4976

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<211> 792

<212> PRT

<213> Homo sapiens

<400> 4978

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Glu	Thr	Thr	Thr	Ser	Thr	Ile	Ile	Thr	Thr	Thr	Val	Ile	Thr	Thr	Glu
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Cys	Thr	Tyr	Asn	Val	Thr	Val	Tyr	Thr	Gly	Tyr	Gly	Val	Glu	Leu	Gln
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Val	Lys	Ser	Val	Asn	Leu	Ser	Asp	Gly	Glu	Leu	Leu	Ser	Ile	Arg	Gly
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Val	Asp	Gly	Pro	Thr	Leu	Thr	Val	Leu	Ala	Asn	Gln	Thr	Leu	Leu	Val

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Ala Phe Met Leu Ser Cys Asn Phe Pro Arg Arg Pro Asp Ser Gly Asp
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Val Thr Val Met Asp Leu His Ser Gly Gly Val Ala His Phe His Cys
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His Leu Gly Tyr Glu Leu Gln Gly Ala Lys Met Leu Thr Cys Ile Asn
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Ala Ser Lys Pro His Trp Ser Ser Gln Glu Pro Ile Cys Ser Ala Pro
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Leu Ile Phe Gly Lys Gly Gln Gly Phe Ile Met Asn Tyr Ile Glu Val
      500              505              510
Ser Arg Asn Asp Ser Cys Ser Asp Leu Pro Glu Ile Gln Asn Gly Trp
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<211> 1865

<212> DNA

<213> Homo sapiens

<400> 4979

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<211> 266

<212> PRT

<213> Homo sapiens

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<211> 1902

<212> DNA

<213> Homo sapiens

<400> 4981

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 4986

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Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His	Leu
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Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys	Pro
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Asp Ile Val Leu Val His Tyr Leu Asn Val Pro Ala Leu Glu Asp Cys
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Val Ser Pro Asp Phe Pro Glu Ala Glu Ala Ala His Thr Pro Cys Ser
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Ala Leu Glu Pro Ala Ala Ala Leu Glu Pro Gln Ala Ala Ala Arg Gly
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Pro Pro Pro Gln Ser Val Ala Gly Gly Arg Arg Gly Asn Cys Phe Phe
465              470              475              480
Ile Gln Asp Asp Asp Ser Gly Glu Glu Leu Lys Gly His Gly Ala Ala
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Pro	His	Gln	Gly	Asp	Gly	Val	Thr	Thr	Glu	Ala	Gly	Ser	Glu	Leu	Pro
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<211> 54

<212> PRT

<213> Homo sapiens

<400> 4990

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Lys	Lys	Arg	Phe	Gln	Gln	Ala	Thr	Pro	Gly	Ser	Ala	Pro	Val	Ser	Arg
			20					25					30		
Glu	Gln	Ala	Ser	Phe	Leu	Ala	Ser	Ser	Phe	Ser	Ser	Ser	Ala	Gly	Pro
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<210> 4991

<211> 828

<212> DNA

<213> Homo sapiens

<400> 4991

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 420
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 480
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 720
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<210> 4992

<211> 69

<212> PRT

<213> Homo sapiens

<400> 4992

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Leu	Val	Asn	Arg	Ile	Tyr	Asn	Leu	Gln	Glu	Glu	Ala	Arg	Gln	Ala	Glu
		20					25				30				
Glu	Leu	Arg	Asp	Lys	Tyr	Leu	Glu	Lys	Glu	Asp	Leu	Glu	Leu	Lys	
	35					40				45					
Cys	Ser	Thr	Leu	Gly	Lys	Asp	Cys	Glu	Met	Tyr	Lys	His	Arg	Met	Asn
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Thr	Val	Met	Leu	Gln											
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<210> 4993

<211> 837

<212> DNA

<213> Homo sapiens

<400> 4993

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 180
 ttctaataga cagtcctgcc cggggtgagg gcacccattc tgaagaggaa ggctttgcca
 240
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 300
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 360
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 420
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 480
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 720
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 837

<210> 4994

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4994

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Ala	Arg	Gly	Glu	Gly	Thr	His	Ser	Glu	Glu	Glu	Gly	Phe	Ala	Met	Asp
		20					25					30			
Glu	Glu	Asp	Ser	Asp	Gly	Glu	Leu	Asn	Thr	Trp	Glu	Leu	Ser	Glu	Gly
	35					40					45				
Thr	Asn	Cys	Pro	Pro	Lys	Glu	Gln	Pro	Gly	Asp	Leu	Phe	Asn	Glu	Asp
	50				55					60					
Trp	Asp	Ser	Glu	Leu	Lys	Ala	Asp	Gln	Gly	Asn	Pro	Tyr	Asp	Ala	Asp
65				70				75					80		
Asp	Ile	Gln	Glu	Ser	Ile	Ser	Gln	Glu	Leu	Lys	Pro	Trp	Val	Cys	Cys
		85					90					95			
Ala	Pro	Gln	Gly	Asp	Met	Ile	Tyr	Asp	Pro	Ser	Trp	His	His	Pro	Pro
		100					105					110			
Pro	Leu	Ile	Pro	Tyr	Tyr	Ser	Lys	Met	Val	Phe	Glu	Thr	Gly	Gln	Phe
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<210> 4995

<211> 1595

<212> DNA

<213> Homo sapiens

<400> 4995

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120
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240
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360
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420
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540
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<210> 4996
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 4996
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 35 40 45
 Val Met Asp Gly Val Ile Ser Asp His Glu Cys Gln Glu Leu Gln Arg
 50 55 60
 Leu Thr Asn Val Ala Ala Thr Ser Gly Asp Gly Tyr Arg Gly Gln Thr
 65 70 75 80
 Ser Pro His Thr Pro Asn Glu Lys Phe Tyr Gly Val Thr Val Phe Lys
 85 90 95
 Ala Leu Lys Leu Gly Gln Glu Gly Lys Val Pro Leu Gln Ser Ala His
 100 105 110
 Leu Tyr Tyr Asn Val Thr Glu Lys Val Arg Arg Ile Met Glu Ser Tyr
 115 120 125
 Phe Arg Leu Asp Thr Pro Leu Tyr Phe Ser Tyr Ser His Leu Val Cys
 130 135 140
 Arg Thr Ala Ile Glu Glu Val Gln Ala Glu Arg Lys Asp Asp Ser His
 145 150 155 160
 Pro Val His Val Asp Asn Cys Ile Leu Asn Ala Glu Thr Leu Val Cys
 165 170 175
 Val Lys Glu Pro Pro Ala Tyr Thr Phe Arg Asp Tyr Ser Ala Ile Leu
 180 185 190
 Tyr Leu Asn Gly Asp Phe Asp Gly Gly Asn Phe Tyr Phe Thr Glu Leu
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 210 215

<210> 4997
 <211> 1888
 <212> DNA
 <213> Homo sapiens

<400> 4997
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 1860
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 1888

<210> 4998
 <211> 464
 <212> PRT
 <213> Homo sapiens

<400> 4998
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 35 40 45
 Cys Pro Glu Glu Gln Pro His Val Gly Asn Tyr Arg Leu Leu Arg Thr
 50 55 60
 Ile Gly Lys Gly Asn Phe Ala Lys Val Lys Leu Ala Arg His Ile Leu
 65 70 75 80
 Thr Gly Arg Glu Val Ala Ile Lys Ile Ile Asp Lys Thr Gln Leu Asn
 85 90 95
 Pro Ser Ser Leu Gln Lys Leu Phe Arg Glu Val Arg Ile Met Lys Gly
 100 105 110
 Leu Asn His Pro Asn Ile Val Lys Leu Phe Glu Val Ile Glu Thr Glu
 115 120 125
 Lys Thr Leu Tyr Leu Val Met Glu Tyr Ala Ser Ala Gly Glu Pro Pro
 130 135 140
 Thr Leu Ser Ala Leu Pro Leu Cys His Leu Pro Leu Pro Leu His Leu
 145 150 155 160
 Thr Leu Thr Pro Leu Gly Leu Cys Pro Ala Gly Glu Val Phe Asp Tyr
 165 170 175
 Leu Val Ser His Gly Arg Met Lys Glu Lys Glu Ala Arg Ala Lys Phe
 180 185 190
 Arg Gln Ile Val Ser Ala Val His Tyr Cys His Gln Lys Asn Ile Val
 195 200 205
 His Arg Asp Leu Lys Ala Glu Asn Leu Leu Leu Asp Ala Glu Ala Asn
 210 215 220
 Ile Lys Ile Ala Asp Phe Gly Phe Ser Asn Glu Phe Thr Leu Gly Ser
 225 230 235 240
 Lys Leu Asp Thr Phe Cys Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu
 245 250 255
 Phe Gln Gly Lys Lys Tyr Asp Gly Pro Glu Val Asp Ile Trp Ser Leu
 260 265 270
 Gly Val Ile Leu Tyr Thr Leu Val Ser Gly Ser Leu Pro Phe Asp Gly
 275 280 285
 His Asn Leu Lys Glu Leu Arg Glu Arg Val Leu Lys Gly Lys Tyr Arg
 290 295 300
 Val Pro Phe Tyr Met Ser Thr Asp Cys Glu Ser Ile Leu Arg Arg Phe
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 325 330 335
 Asp Lys Trp Ile Asn Ile Gly Tyr Glu Gly Glu Glu Leu Lys Pro Tyr

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          370          375          380
Gln Lys Tyr Asn Glu Val Thr Ala Thr Tyr Leu Leu Leu Gly Arg Lys
          385          390          395          400
Thr Glu Pro Asp Glu His Gly Gly Gly Gly Ala Glu Gly Gly Ala Ala
          405          410          415
Ala Arg Pro Glu Gly Glu Leu Gln His Arg Gly Glu Trp Glu Ser Arg
          420          425          430
Ala Ala Pro Leu Gln Pro His Gly Gln Gln Arg Pro Gln Pro Gln Gln
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<210> 4999

<211> 1630

<212> DNA

<213> Homo sapiens

<400> 4999

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960

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<210> 5000
 <211> 307
 <212> PRT
 <213> Homo sapiens

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 Arg Glu Ser Asn Val Leu His Glu Lys Ser Lys Gly Lys Thr Arg Glu
 35 40 45
 Gly Ala Glu Asp Lys Met Thr Ser Gly Asp Val Leu Ser Asn Arg Lys
 50 55 60
 Met Phe Tyr Leu Leu Lys Thr Ala Phe Pro Ser Val Gln Ile Asn Thr
 65 70 75 80
 Glu Glu His Val Asp Ala Ala Asp Gln Glu Val Ile Leu Trp Asp His
 85 90 95
 Lys Ile Pro Glu Asp Ile Leu Lys Glu Val Thr Thr Pro Lys Glu Val
 100 105 110
 Pro Ala Glu Ser Val Thr Val Trp Ile Asp Pro Leu Asp Ala Thr Gln
 115 120 125
 Glu Tyr Thr Glu Asp Leu Arg Lys Tyr Val Thr Thr Met Val Cys Val
 130 135 140
 Ala Val Asn Gly Lys Pro Met Leu Gly Val Ile His Lys Pro Phe Ser
 145 150 155 160
 Glu Tyr Thr Ala Trp Ala Met Val Asp Gly Gly Ser Asn Val Lys Ala
 165 170 175
 Arg Ser Ser Tyr Asn Glu Lys Thr Pro Arg Ile Val Val Ser Arg Ser

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His Ser Gly Met Val Lys Gln Val Ala Leu Gln Thr Phe Gly Asn Gln
                195                200                205
Thr Thr Ile Ile Pro Ala Gly Gly Ala Gly Tyr Lys Val Leu Ala Leu
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Leu Asp Val Pro Asp Lys Ser Gln Glu Lys Ala Asp Leu Tyr Ile His
225                230                235                240
Val Thr Tyr Ile Lys Lys Trp Asp Ile Cys Ala Gly Asn Ala Ile Leu
                245                250                255
Lys Ala Leu Gly Gly His Met Thr Thr Leu Ser Gly Glu Glu Ile Ser
                260                265                270
Tyr Thr Gly Ser Asp Gly Ile Glu Gly Gly Leu Leu Ala Ser Ile Arg
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<210> 5001
<211> 3427
<212> DNA
<213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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Arg Ser Gln Tyr Leu Ser Ser Val Leu Ser Gln Ile Arg Ile Asp Ala
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Phe Lys Pro Arg Leu Gly Met Thr Lys Glu Glu Met Met Ile Phe Ile
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<210> 5003

<211> 3729

<212> DNA

<213> Homo sapiens

<400> 5003

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<211> 642
 <212> PRT
 <213> Homo sapiens

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<211> 165

<212> PRT

<213> Homo sapiens

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<211> 2165
<212> DNA
<213> Homo sapiens

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<211> 487

<212> PRT

<213> Homo sapiens

<400> 5008

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			20					25					30		
Ser	Met	Ala	Lys	Ile	His	Ala	Arg	Asn	Gly	Asp	Leu	Ser	Glu	Ala	Ala
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Met	Cys	Tyr	Ile	His	Ile	Ala	Ala	Leu	Ile	Ala	Glu	Tyr	Leu	Lys	Arg
	50					55					60				
Lys	Gly	Met	Phe	Ser	Met	Gly	Trp	Pro	Ala	Val	Leu	Ser	Ile	Thr	Pro
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Asn	Ile	Lys	Glu	Glu	Gly	Ala	Met	Lys	Glu	Asp	Ser	Gly	Met	Gln	Asp
			85					90					95		
Thr	Pro	Tyr	Asn	Glu	Asn	Ile	Leu	Val	Glu	Gln	Leu	Tyr	Met	Cys	Val
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 Ala Cys Gly Gln Ala Leu Asp Val Asn Glu Arg Leu Ile Lys Glu Asp
 405 410 415
 Gln Leu Glu Tyr Gln Glu Glu Leu Arg Ser His Tyr Lys Asp Met Leu
 420 425 430
 Ser Glu Leu Ser Thr Val Met Asn Glu Gln Leu Cys Arg Gly Pro Cys
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<212> DNA

<213> Homo sapiens

<400> 5009

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<213> Homo sapiens

<400> 5010

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			20					25					30		
Asn	Leu	Pro	Gly	Arg	Val	His	Gln	Phe	Phe	Ile	Ser	Pro	Leu	Phe	Ile
		35					40					45			
Leu	Ser	Phe	Glu	Val	Ile	Leu	Ile	His	Phe	Leu	His	Leu	Gln	Pro	Pro
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Val	Leu	Leu	Asp	Leu	Ala	Pro	Asn	Leu	Leu	Leu	Pro	Phe	Gly	Thr	Glu
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Glu	Lys	Leu	Leu	Ser	Ser	Pro	Cys	Phe	Ala	Asp	Ile	Ser	Lys	Gly	Lys
			85					90				95			
Glu	Ser	Thr	Gly	Pro	Phe	Ile	Ser	Cys	Pro	Arg	Pro	Ser	Gln	Gly	Ala
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<211> 950

<212> PRT

<213> Homo sapiens

<400> 5012

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Lys Ile Pro Val Asp Ala Ser Lys Pro Asn Pro Asn Asp Val Glu Phe
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Asp Asn Leu Tyr Leu Asp Met Asn Gly Ile Ile His Pro Cys Thr His
 50           55           60
Pro Glu Asp Lys Pro Ala Pro Lys Asn Glu Asp Glu Met Met Val Ala
 65           70           75           80
Ile Phe Glu Tyr Ile Asp Arg Leu Phe Ser Ile Val Arg Pro Arg Arg
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Leu Leu Tyr Met Ala Ile Asp Gly Val Ala Pro Arg Val Lys Met Asn
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Gln Gln Arg Ser Arg Arg Phe Arg Ala Ile Lys Glu Gly Met Glu Ala
 115          120          125
Ala Val Glu Lys Gln Arg Val Arg Glu Glu Ile Leu Ala Lys Gly Gly
 130          135          140
Phe Leu Pro Pro Glu Glu Ile Lys Glu Arg Phe Asp Ser Asn Cys Ile
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Thr Pro Gly Thr Glu Phe Met Asp Asn Leu Ala Lys Cys Leu Arg Tyr
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Tyr Ile Ala Asp Arg Leu Asn Asn Asp Pro Gly Trp Lys Asn Leu Thr
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Val Ile Leu Ser Asp Ala Ser Ala Pro Gly Glu Gly Glu His Lys Ile
 195          200          205
Met Asp Tyr Ile Arg Arg Gln Arg Ala Gln Pro Asn His Asp Pro Asn
 210          215          220
Thr His His Cys Leu Cys Gly Ala Asp Ala Asp Leu Ile Met Leu Gly
 225          230          235          240
Leu Ala Thr His Glu Pro Asn Phe Thr Ile Ile Arg Glu Glu Phe Lys
 245          250          255
Pro Asn Lys Pro Lys Pro Cys Gly Leu Cys Asn Gln Phe Gly His Glu
 260          265          270
Val Lys Asp Cys Glu Gly Leu Pro Arg Glu Lys Lys Gly Lys His Asp
 275          280          285
Glu Leu Ala Asp Ser Leu Pro Cys Ala Glu Gly Glu Phe Ile Phe Leu
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Ser Leu Pro Phe Thr Phe Asp Val Glu Arg Ser Ile Asp Asp Trp Val
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Phe Met Cys Phe Phe Val Gly Asn Asp Phe Leu Pro His Leu Pro Ser
 340          345          350
Leu Glu Ile Arg Glu Asn Ala Ile Asp Arg Leu Val Asn Ile Tyr Lys
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Asn Val Val His Lys Thr Gly Gly Tyr Leu Thr Glu Ser Gly Tyr Val
 370          375          380
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<212> PRT

<213> Homo sapiens

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      50           55           60
Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
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Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
      100          105          110
Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
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His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
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His Leu Leu Leu Pro Leu Ala Phe Glu Phe Asp Pro Glu Leu Val Leu
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Val Ser Ala Gly Phe Asp Ser Ala Ile Gly Asp Pro Glu Gly Gln Met
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Glu Ser Leu Ala Glu Ser Val Cys Met Thr Val Gln Thr Leu Leu Gly
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<210> 5015

<211> 1360

<212> DNA

<213> Homo sapiens

<400> 5015

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<211> 284

<212> PRT

<213> Homo sapiens

<400> 5016

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Gln	Leu	Thr	Phe	His	Arg	Phe	Pro	Phe	Ser	Arg	Pro	Glu	Leu	Leu	Lys
65				70					75					80	
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Glu Arg Gly Asn Ala Ser Ser Ser Gln Lys Glu Lys Val Leu Pro Glu
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Glu Glu Leu Gln Leu Pro Pro Asn Ala Glu Gly His Val Lys Gln Val
      180              185              190
Ser Pro Arg Arg Pro Gln Ala Thr Glu Ala Val Gly Arg Pro Thr Gly
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Pro Ala Gly Leu Arg Arg Thr Pro Asn Lys Gln Pro Ser Asp His Ser
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225              230              235              240
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<211> 785

<212> DNA

<213> Homo sapiens

<400> 5017

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 <213> Homo sapiens

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<211> 433

<212> PRT

<213> Homo sapiens

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		20					25						30		
Glu	Gln	His	His	Trp	Asp	Asp	Arg	Arg	Met	Pro	Asp	Gly	Gly	Tyr	
		35					40					45			
Pro	His	Gly	Pro	Pro	Gly	Pro	Leu	Gly	Leu	Leu	Gly	Val	Arg	Pro	Gly
	50					55					60				
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65					70					75				80	
Ser	Asp	Asp	Arg	Tyr	Val	Met	Thr	Lys	His	Ala	Thr	Ile	Tyr	Pro	Thr
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Glu	Glu	Glu	Leu	Gln	Ala	Val	Gln	Lys	Ile	Val	Ser	Ile	Thr	Glu	Arg
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Ala	Leu	Lys	Leu	Val	Ser	Asp	Ser	Leu	Ser	Glu	His	Glu	Lys	Asn	Lys
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Lys	Thr	Leu	Leu	Ser	Arg	Ile	Ala	Glu	Asn	Leu	Pro	Lys	Gln	Leu	Ala
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Thr	Leu	Thr	Ser	Pro	Ile	Ile	Arg	Glu	Glu	Asn	Met	Arg	Glu	Gly	Asp
225					230					235				240	
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			245							250				255	
Lys	Cys	Leu	Asp	Ala	Leu	Ala	Ala	Leu	Arg	His	Ala	Lys	Trp	Phe	Gln
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305              310              315              320
Gln Ser Pro Gly Asp Ala Leu Arg Arg Val Phe Glu Cys Ile Ser Ser
      325              330              335
Gly Ile Ile Leu Lys Gly Ser Pro Gly Leu Leu Asp Pro Cys Glu Lys
      340              345              350
Asp Pro Phe Asp Thr Leu Ala Thr Met Thr Asp Gln Gln Arg Glu Asp
      355              360              365
Ile Thr Ser Ser Ala Gln Phe Ala Leu Arg Leu Leu Ala Phe Arg Gln
      370              375              380
Ile His Lys Val Leu Gly Met Asp Pro Leu Pro Gln Met Ser Gln Arg
385              390              395              400
Phe Asn Ile His Asn Asn Arg Lys Arg Arg Asp Ser Asp Gly Val
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      35           40           45
Gly Asn Ser Ser Cys Tyr Gly Val Leu Pro Thr Glu Glu Pro Val Tyr
      50           55           60
Asn Trp Arg Thr Val Ile Asn Ser Ala Ala Asp Phe Tyr Phe Glu Gly
      65           70           75
Asn Ile His Gln Ser Leu Gln Asn Ile Thr Glu Asn Gln Leu Val Gln
      85           90           95
Pro Thr Ile Leu Gln Gln Lys Gly Gly Lys Gly Arg Lys Lys Leu Arg
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<212> DNA

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<210> 5024

<211> 323

<212> PRT

<213> Homo sapiens

<400> 5024

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Pro Ala Ser Cys Ile Arg Pro Thr Asn Ala Gly Val Leu Ser Thr Thr
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Pro Ser Gly Lys Ser Val Gly Glu Ala His Ser Val Ser Pro Pro Pro
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Arg Arg Gly Val Thr Ser Val Ile Lys Leu Leu Ser Leu Leu Trp Lys
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His Val Asp Cys Ala Arg Ala Arg Pro Thr Gly Ser Cys Thr Pro Glu
225              230              235              240
Gln Gln Gly Ile Leu Glu Lys Glu Leu Leu Val Arg Tyr Leu Glu Gln
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Cys Pro Thr Thr Ser Gly Thr Asp Phe Pro Ser Leu Gln Ser Lys Ala
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<210> 5025

<211> 2596

<212> DNA

<213> Homo sapiens

<400> 5025

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 <212> PRT
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 35 40 45
 Val Leu Asp Pro Lys Glu Lys Gln Lys Tyr Thr Asp Met Ala Lys Glu
 50 55 60
 Tyr Lys Asp Ala Phe Met Lys Ala Asn Pro Gly Tyr Lys Trp Cys Pro
 65 70 75 80
 Thr Thr Asn Lys Pro Val Lys Ser Pro His Pro Leu Ser Ile His Glu
 85 90 95
 Arg Asn Phe Gly Pro Ser His Leu Thr Leu Gln Glu Thr Cys Gln Ala
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 <213> Homo sapiens

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<210> 5028
 <211> 68
 <212> PRT
 <213> Homo sapiens

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 Cys Arg Cys Ser
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<210> 5029
 <211> 1440
 <212> DNA
 <213> Homo sapiens

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<211> 188

<212> PRT

<213> Homo sapiens

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			20					25					30		
Val	Ile	Leu	Ile	Phe	Cys	Leu	Met	Thr	Leu	Ile	Gly	Asn	Leu	Phe	Ile
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Ile	Ile	Leu	Thr	Tyr	Leu	Asp	Ser	His	Leu	His	Thr	Pro	Leu	Tyr	Phe
	50					55					60				
Phe	Leu	Ser	Asn	Leu	Ser	Phe	Leu	Asp	Leu	Cys	Tyr	Thr	Thr	Ser	Ser
65					70					75				80	
Ile	Pro	Gln	Leu	Leu	Val	Ser	Leu	Trp	Gly	Val	Glu	Lys	Thr	Ile	Ser
			85						90					95	
Tyr	Ala	Gly	Cys	Met	Val	Gln	Leu	Tyr	Phe	Phe	Leu	Thr	Leu	Gly	Thr
		100						105					110		
Thr	Glu	Cys	Val	Leu	Leu	Val	Val	Met	Ser	Tyr	Asp	Arg	Tyr	Ala	Ala
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Val	Cys	Arg	Pro	Leu	His	Tyr	Thr	Val	Leu	Met	His	Ser	Arg	Phe	Cys
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His	Leu	Leu	Ala	Val	Ala	Ser	Trp	Val	Ser	Gly	Phe	Thr	Asn	Pro	Ala
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 <212> DNA
 <213> Homo sapiens

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<210> 5032
 <211> 158
 <212> PRT
 <213> Homo sapiens

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 Met Gly Val Leu Ala Arg Glu Ala Pro His Leu Glu Lys Gln Pro Ala
 50 55 60
 Ala Gly Pro Gln Arg Val Leu Pro Gly Glu Arg Glu Glu Arg Pro Pro
 65 70 75 80
 Thr Leu Ser Ala Ser Phe Arg Thr Met Ala Glu Phe Met Asp Tyr Thr
 85 90 95
 Ser Ser Gln Cys Gly Lys Tyr Tyr Ser Ser Val Pro Glu Glu Gly Gly
 100 105 110
 Ala Thr His Val Tyr Arg Tyr His Arg Gly Glu Ser Lys Leu His Met
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<210> 5033
 <211> 2888

<212> DNA

<213> Homo sapiens

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<210> 5034

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5034

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His Phe Tyr Arg Pro Pro Arg Cys Ser His Cys Ser Val Cys Asp Asn
           35           40           45
Cys Val Glu Val Thr Gly Lys Phe Arg Gly Gly Val Asn Pro Phe Thr
           50           55           60
Arg Gly Cys Cys Gly Asn Val Glu His Val Leu Cys Ser Pro Leu Ala
65           70           75           80
Pro Arg Tyr Val Val Glu Pro Pro Arg Leu Pro Leu Ala Val Ser Leu
           85           90           95
Lys Pro Pro Phe Leu Arg Pro Glu Leu Leu Asp Arg Ala Ala Pro Leu
           100          105          110
Lys Val Lys Leu Ser Asp Asn Gly Leu Lys Ala Gly Leu Gly Arg Ser
           115          120          125
Lys Ser Lys Gly Ser Leu Asp Arg Leu Asp Glu Lys Pro Leu Asp Leu
           130          135          140
Gly Pro Pro Leu Pro Pro Lys Ile Glu Ala Gly Thr Phe Ser Ser Asp
145          150          155          160
Leu Gln Thr Pro Arg Pro Gly Ser Ala Glu Ser Ala Leu Ser Val Gln
           165          170          175
Arg Thr Ser Pro Pro Thr Pro Ala Met Tyr Lys Phe Arg Pro Ala Phe
           180          185          190
Pro Thr Gly Pro Lys Val Pro Phe Cys Gly Pro Gly Glu Gln Val Pro
           195          200          205
Gly Pro Asp Ser Leu Thr Leu Gly Asp Asp Asn Ile Arg Ser Leu Asp
           210          215          220
Phe Val Ser Glu Pro Ser Leu Asp Leu Pro Asp Tyr Gly Pro Gly Gly
225          230          235          240
Leu His Ala Ala Tyr Pro Pro Ser Pro Pro Leu Ser Ala Ser Asp Ala
           245          250          255
Phe Ser Gly Ala Leu Arg Ser Leu Ser Leu Lys Ala Ser Ser Arg Arg
           260          265          270
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           275          280          285
Pro Thr Pro His Arg Ser Ile Phe Ala Pro His Ala Leu Pro Asn Arg
           290          295          300
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           325          330          335
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           340          345          350
Pro Arg Ser Phe Ser Pro Val Leu Gly Pro Arg Pro Arg Glu Pro Ser
           355          360          365
Pro Val Arg Tyr Asp Asn Leu Ser Arg Thr Ile Met Ala Ser Ile Gln
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Glu Arg Lys Asp Arg Glu Glu Arg Glu Arg Leu Leu Arg Ser Gln Ala
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Asp Ser Leu Phe Gly Asp Ser Gly Val Tyr Asp Ala Pro Ser Ser Tyr
           405          410          415
Ser Leu Gln Gln Ala Ser Val Leu Ser Glu Gly Pro Arg Gly Pro Ala

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 Ser Val Ser Arg Ala Pro Arg Thr Ser Ser Ser Ser Leu Gln Ala Asp
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 Gln Val Thr Cys Thr Pro Gly Pro Ala Leu Pro Ala Arg His Ser Pro
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 Leu Thr Ile Leu Arg Gly Pro Gln Ser Cys Arg Leu His Pro His Gly
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<210> 5035

<211> 2002

<212> DNA

<213> Homo sapiens

<400> 5035

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<210> 5036

<211> 384

<212> PRT

<213> Homo sapiens

<400> 5036

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Phe	Gly	Gln	Ala	Glu	Lys	Thr	Glu	Leu	Asp	Ala	His	Phe	Glu	Asn	Leu
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Leu	Ala	Arg	Ala	Asp	Ser	Thr	Lys	Asn	Trp	Thr	Glu	Lys	Ile	Leu	Arg
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Pro Thr Thr Pro Tyr Gly Lys Thr Leu Ile Lys Val Ala Glu Ala Glu
115            120            125
Lys Gln Leu Gly Ala Ala Glu Arg Asp Phe Ile His Thr Ala Ser Ile
130            135            140
Ser Phe Leu Thr Pro Leu Arg Asn Phe Leu Glu Gly Asp Trp Lys Thr
145            150            155            160
Ile Ser Lys Glu Ser Arg Leu Leu Gln Asn Arg Arg Leu Asp Leu Asp
165            170            175
Ala Cys Lys Ala Arg Leu Lys Lys Ala Lys Ala Ala Glu Ala Lys Ala
180            185            190
Thr Leu Trp Asn Asp Glu Val Asp Lys Ala Glu Gln Glu Leu Arg Val
195            200            205
Ala Gln Thr Glu Phe Asp Arg Gln Ala Glu Val Thr Arg Leu Leu Leu
210            215            220
Glu Gly Ile Ser Ser Thr His Val Asn His Leu Arg Cys Leu His Glu
225            230            235            240
Phe Val Lys Ser Gln Thr Thr Tyr Tyr Ala Gln Cys Tyr Arg His Met
245            250            255
Leu Asp Leu Gln Lys Gln Leu Gly Ser Ser Gln Gly Ala Ile Ser Arg
260            265            270
His Leu Arg Gly His His Arg Ala Arg Leu Pro Pro Leu Ser Ser Thr
275            280            285
Ser Pro Thr Thr Ala Ala Ala Thr Met Pro Val Val Pro Ser Val Ala
290            295            300
Ser Leu Ala Pro Pro Gly Glu Ala Ser Leu Cys Leu Glu Glu Val Ala
305            310            315            320
Pro Pro Ala Ser Gly Thr Arg Lys Ala Arg Val Leu Tyr Asp Tyr Glu
325            330            335
Ala Ala Asp Ser Ser Glu Leu Ala Leu Leu Ala Asp Glu Leu Ile Thr
340            345            350
Val Tyr Ser Leu Pro Gly Met Asp Pro Asp Trp Leu Ile Gly Glu Arg
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<210> 5037

<211> 2102

<212> DNA

<213> Homo sapiens

<400> 5037

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180
cgccctgccc cgccccgctt cctccctctc gtgcgtcctc aagcatttgc tgttgttttc
240

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 <212> PRT
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 His Tyr Gln Thr Asn His Ser Lys His Tyr Asp Gln Tyr Thr Glu Arg
 50 55 60
 Met Arg Asp Glu Lys Leu His Glu Leu Lys Lys Gly Leu Arg Lys Tyr
 65 70 75 80
 Leu Leu Gly Ser Ser Asp Thr Glu Cys Pro Glu Gln Lys Gln Val Phe
 85 90 95
 Ala Asn Pro Ser Pro Thr Gln Lys Ser Pro Val Gln Pro Val Glu Asp
 100 105 110
 Leu Ala Gly Asn Leu Trp Glu Lys Leu Arg Glu Lys Ile Arg Ser Phe
 115 120 125
 Val Ala Tyr Ser Ile Ala Ile Asp Glu Ile Thr Asp Ile Asn Asn Thr
 130 135 140
 Thr Gln Leu Ala Ile Phe Ile Arg Gly Val Asp Glu Asn Phe Asp Val
 145 150 155 160
 Ser Glu Glu Leu Leu Asp Thr Val Pro Met Thr Gly Thr Lys Ser Gly
 165 170 175
 Asn Glu Ile Phe Ser Arg Val Glu Lys Ser Leu Lys Lys Phe Cys Ile
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 Asp Trp Ser Lys Leu Val Ser Val Ala Ser Thr Gly Thr Pro Ala Met
 195 200 205
 Val Asp Ala Asn Asn Gly Leu Val Thr Lys Leu Lys Ser Arg Val Ala
 210 215 220
 Thr Phe Cys Lys Gly Ala Glu Leu Lys Ser Ile Cys Cys Ile Ile His
 225 230 235 240
 Pro Glu Ser Leu Cys Ala Gln Lys Leu Lys Met Asp His Val Met Asp
 245 250 255
 Val Val Val Lys Ser Val Asn Trp Ile Cys Ser Arg Gly Leu Asn His
 260 265 270
 Ser Glu Phe Thr Thr Leu Leu Tyr Glu Leu Asp Ser Gln Tyr Gly Ser
 275 280 285
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 325 330 335
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 Ser Leu Gln Gly His Ser Gln Ile Val Thr Gln Met Tyr Asp Leu Ile
 355 360 365
 Arg Ala Phe Leu Ala Lys Leu Cys Leu Trp Glu Thr His Leu Thr Arg
 370 375 380
 Asn Asn Leu Ala His Phe Pro Thr Leu Lys Leu Ala Ser Arg Asn Glu
 385 390 395 400
 Ser Asp Gly Leu Asn Tyr Ile Pro Lys Ile Ala Glu Leu Lys Thr Glu
 405 410 415
 Phe Gln Lys Arg Leu Ser Asp Phe Lys Leu Tyr Glu Ser Glu Leu Thr
 420 425 430
 Leu Phe Ser Ser Pro Phe Ser Thr Lys Ile Asp Ser Val His Glu Glu
 435 440 445
 Leu Gln Met Glu Val Ile Asp Leu Gln Cys Asn Thr Val Leu Lys Thr
 450 455 460
 Lys Tyr Asp Lys Val Gly Ile Pro Glu Phe Tyr Lys Tyr Leu Trp Gly
 465 470 475 480
 Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser Met Phe
 485 490 495
 Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys Leu Ser
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 Lys Thr Lys Tyr Cys Ser Gln Leu Lys Asp Ser Gln Trp Asp Ser Val
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<210> 5039

<211> 3059

<212> DNA

<213> Homo sapiens

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<211> 616

<212> PRT

<213> Homo sapiens

<400> 5040

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 Tyr Leu Gly Ser Gly Gly Trp Arg Phe Ile Arg Val Phe Ile Lys Thr
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 Ile Arg Arg Asp Ile Phe Gly Gly Leu Val Leu Leu Lys Val Lys Ala
 50 55 60
 Lys Val Arg Gln Cys Leu Gln Glu Arg Arg Thr Val Pro Ile Leu Phe
 65 70 75 80
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 85 90 95
 Gly Thr Asp Thr His Trp Thr Phe Arg Gln Leu Asp Glu Tyr Ser Ser
 100 105 110
 Ser Val Ala Asn Phe Leu Gln Ala Arg Gly Leu Ala Ser Gly Asp Val


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145      150      155      160
Arg Arg Asp Ala Leu Leu His Cys Leu Thr Thr Ser Arg Ala Arg Ala
165      170      175
Leu Val Phe Gly Ser Glu Met Ala Ser Ala Ile Cys Glu Val His Ala
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Ser Pro Asp Pro Ser Leu Ser Leu Phe Cys Ser Gly Ser Trp Glu Pro
195      200      205
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Ala Pro Lys His Leu Pro Ser Cys Pro Asp Lys Gly Phe Thr Asp Lys
225      230      235      240
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Ile Val Val His Ser Arg Tyr Tyr Arg Met Ala Ala Leu Val Tyr Tyr
260      265      270
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275      280      285
Tyr His Ser Ala Gly Asn Ile Val Gly Ile Gly Gln Cys Leu Leu His
290      295      300
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305      310      315      320
Asp Asp Cys Ile Lys Tyr Asn Cys Thr Ile Val Gln Tyr Ile Gly Glu
325      330      335
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Pro Thr Phe Pro Ala Ala Ser Thr Tyr Pro Arg Trp Leu Ser Ser Thr
370      375      380
Gly Pro Glu Cys Asn Cys Ser Leu Gly Asn Phe Asp Ser Gln Val Gly
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Leu Val Arg Val Asn Glu Asp Thr Met Glu Leu Ile Arg Gly Pro Asp
420      425      430
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435      440      445
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Tyr Leu Tyr Phe Arg Asp Arg Thr Gly Asp Thr Phe Arg Trp Lys Gly
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Glu Asn Val Ser Thr Thr Glu Val Glu Gly Thr Leu Ser Arg Leu Leu
515      520      525
Asp Met Ala Asp Val Ala Val Tyr Gly Val Glu Val Pro Gly Thr Glu
530      535      540
Gly Arg Ala Gly Met Ala Ala Val Ala Ser Pro Thr Gly Asn Cys Asp

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Tyr Lys Phe Gln Lys Thr Glu Leu Arg Lys Glu Ala Phe Asp Pro Ala
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Ile Val Lys Thr Arg Cys Ser Ile
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<212> DNA
<213> Homo sapiens

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240
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<210> 5042

<211> 686

<212> PRT

<213> Homo sapiens

<400> 5042

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Ala Arg Glu Ala Ser Glu Glu Glu Leu Gly Leu Val His Ser Pro Glu
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Tyr Val Ser Leu Val Arg Glu Thr Gln Val Leu Gly Lys Glu Glu Leu
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Gln Ala Leu Ser Gly Gln Phe Asp Ala Ile Tyr Phe His Pro Ser Thr
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Phe His Cys Ala Arg Leu Ala Ala Gly Ala Gly Leu Gln Leu Val Asp
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Pro Gly His His Gly Gln Arg Ala Ala Ala Asn Gly Phe Cys Val Phe
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Asn Asn Val Ala Ile Ala Ala Ala His Ala Lys Gln Lys His Gly Leu
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His Arg Ile Leu Val Val Asp Trp Asp Val His His Gly Gln Gly Ile
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Gln Tyr Leu Phe Glu Asp Asp Pro Ser Val Leu Tyr Phe Ser Trp His
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Arg Tyr Glu His Gly Arg Phe Trp Pro Phe Leu Arg Glu Ser Asp Ala
210          215          220
Asp Ala Val Gly Arg Gly Gln Gly Leu Gly Phe Thr Val Asn Leu Pro
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Trp Asn Gln Val Gly Met Gly Asn Ala Asp Tyr Val Ala Ala Phe Leu
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Gln Ala Thr Pro Glu Cys Phe Ala His Leu Thr Gln Leu Leu Gln Val
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Pro His Trp Lys Ser Leu Gln Gln Asp Val Thr Ala Val Pro Met
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 Leu Leu Glu Glu Asn Ser Thr Pro Gln Leu Ala Gly Ile Leu Ala Arg
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 Val Leu Asn Gly Glu Ala Pro Pro Ser Leu Gly Pro Ser Ser Val Ala
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<212> DNA

<213> Homo sapiens

<400> 5043

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<211> 273

<212> PRT

<213> Homo sapiens

<400> 5044

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Pro Ser Ala Leu Ser Gly Gly Gln Pro Ala Asp Thr Gln Thr Arg Ala
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Thr Ser Lys Ser Leu Leu Pro Val Arg Ser Lys Glu Val Asp Val Ser
65      70      75      80
Lys Gln Leu His Ser Gly Gly Pro Glu Asn Asp Val Thr Lys Ile Thr
      85           90           95
Lys Leu Arg Arg Glu Asn Gly Gln Met Lys Ala Thr Asp Thr Ala Thr
      100          105          110
Arg Arg Asn Val Arg Lys Gly Tyr Lys Pro Leu Ser Lys Gln Lys Ser
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Thr Gln Lys Val Glu Leu Leu Glu Lys Phe Arg Asp Asn Cys Leu Ala
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Ile Leu Glu Ser Lys Gly Leu Asp Pro Ala Leu Gly Ser Glu Thr Leu
      180          185          190
Ala Ser Arg Gln Glu Ser Thr Thr Asp His Met Asp Ser Met Leu Leu
      195          200          205
Leu Glu Thr Leu Gln Glu Glu Lys Leu Phe Asn Glu Thr Ala Lys
      210          215          220
Lys Gln Met Glu Glu Leu Gln Ala Leu Lys Val Lys Leu Glu Met Lys
225      230      235      240
Glu Glu Arg Val Arg Phe Leu Glu Gln Gln Thr Leu Cys Asn Asn Gln
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 <211> 462
 <212> DNA
 <213> Homo sapiens

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<210> 5046
 <211> 92
 <212> PRT
 <213> Homo sapiens

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 Asp Met Val Ala Cys Cys Leu Phe Ser Cys Ser Ser Lys His Tyr Pro
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 <212> DNA
 <213> Homo sapiens

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<210> 5048

<211> 429

<212> PRT

<213> Homo sapiens

<400> 5048

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<211> 2422
<212> DNA
<213> Homo sapiens
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<213> Homo sapiens

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<213> Homo sapiens

<400> 5052

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 1920
 agtcaagata cttctgggga ctcaaagctt tatcgtttac atccatgcag gtctttacaa
 1980
 atcagacaat atgcatatca ttccgataga tcaagcacta ttcctgcaat gaaggatgat
 2040
 ggtattgggt ataaggttga cactggaaaa gaacctccag tagggaccac tacatctact
 2100
 cagaacaagc caatgacctg ggaagatatt tttattcagc aggaaaatga ttcaattttt
 2160
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 2220
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 2280
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 2340
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 2400
 gtgagacccc ctccccaagt atctgtttat atagttagtt ttcagctcat ttaaaagagg
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 2520

<210> 5056

<211> 672

<212> PRT

<213> Homo sapiens

<400> 5056

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Ser	Leu	Leu	Asn	Ser	Leu	Asn	Glu	Gln	Arg	Gly	His	Gly	Leu	Phe	Cys
			20					25					30		
Asp	Val	Thr	Val	Ile	Val	Glu	Asp	Arg	Lys	Phe	Arg	Ala	His	Lys	Asn
		35					40					45			
Ile	Leu	Ser	Ala	Ser	Ser	Thr	Tyr	Phe	His	Gln	Leu	Phe	Ser	Val	Ala
	50					55					60				
Gly	Gln	Val	Val	Glu	Leu	Ser	Phe	Ile	Arg	Ala	Glu	Ile	Phe	Ala	Glu

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65          70          75          80
Ile Leu Asn Tyr Ile Tyr Ser Ser Lys Ile Val Arg Val Arg Ser Asp
      85          90          95
Leu Leu Asp Glu Leu Ile Lys Ser Gly Gln Leu Leu Gly Val Lys Phe
      100          105          110
Ile Ala Glu Leu Gly Val Pro Leu Ser Gln Val Lys Ser Ile Ser Gly
      115          120          125
Thr Ala Gln Asp Gly Asn Thr Glu Pro Leu Pro Pro Asp Ser Gly Asp
      130          135          140
Lys Asn Leu Val Ile Gln Lys Ser Lys Asp Glu Ala Gln Asp Asn Gly
145          150          155          160
Ala Thr Ile Met Pro Ile Ile Thr Glu Ser Phe Ser Leu Ser Ala Glu
      165          170          175
Asp Tyr Glu Met Lys Lys Ile Ile Val Thr Asp Ser Asp Asp Asp Asp
      180          185          190
Asp Asp Val Ile Phe Cys Ser Glu Ile Leu Pro Thr Lys Glu Thr Leu
      195          200          205
Pro Ser Asn Asn Thr Val Ala Gln Val Gln Ser Asn Pro Gly Pro Val
      210          215          220
Ala Ile Ser Asp Val Ala Pro Ser Ala Ser Asn Asn Ser Pro Pro Leu
225          230          235          240
Thr Asn Ile Thr Pro Thr Gln Lys Leu Pro Thr Pro Val Asn Gln Ala
      245          250          255
Thr Leu Ser Gln Thr Gln Gly Ser Glu Lys Leu Leu Val Ser Ser Ala
      260          265          270
Pro Thr His Leu Thr Pro Asn Ile Ile Leu Leu Asn Gln Thr Pro Leu
      275          280          285
Ser Thr Pro Pro Asn Val Ser Ser Ser Leu Pro Asn His Met Pro Ser
      290          295          300
Ser Ile Asn Leu Leu Val Gln Asn Gln Gln Thr Pro Asn Ser Ala Ile
305          310          315          320
Leu Thr Gly Asn Lys Ala Asn Glu Glu Glu Glu Glu Ile Ile Asp
      325          330          335
Asp Asp Asp Asp Thr Ile Ser Ser Ser Pro Asp Ser Ala Val Ser Asn
      340          345          350
Thr Ser Leu Val Pro Gln Ala Asp Thr Ser Gln Asn Thr Ser Phe Asp
      355          360          365
Gly Ser Leu Ile Gln Lys Met Gln Ile Pro Thr Leu Leu Gln Glu Pro
      370          375          380
Leu Ser Asn Ser Leu Lys Ile Ser Asp Ile Ile Thr Arg Asn Thr Asn
385          390          395          400
Asp Pro Gly Val Gly Ser Lys His Leu Met Glu Gly Gln Lys Ile Ile
      405          410          415
Thr Leu Asp Thr Ala Thr Glu Ile Glu Gly Leu Ser Thr Gly Cys Lys
      420          425          430
Val Tyr Ala Asn Ile Gly Glu Asp Thr Tyr Asp Ile Val Ile Pro Val
      435          440          445
Lys Asp Asp Pro Asp Glu Gly Glu Ala Arg Leu Glu Asn Glu Ile Pro
      450          455          460
Lys Thr Ser Gly Ser Glu Met Ala Asn Lys Arg Met Lys Val Lys His
465          470          475          480
Asp Asp His Tyr Glu Leu Ile Val Asp Gly Arg Val Tyr Tyr Ile Cys
      485          490          495
Ile Val Cys Lys Arg Ser Tyr Val Cys Leu Thr Ser Leu Arg Arg His

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500 505 510
 Phe Asn Ile His Ser Trp Glu Lys Lys Tyr Pro Cys Arg Tyr Cys Glu
 515 520 525
 Lys Val Phe Pro Leu Ala Glu Tyr Arg Thr Lys His Glu Ile His His
 530 535 540
 Thr Gly Glu Arg Arg Tyr Gln Cys Leu Ala Cys Gly Lys Ser Phe Ile
 545 550 555 560
 Asn Tyr Gln Phe Met Ser Ser His Ile Lys Ser Val His Ser Gln Asp
 565 570 575
 Pro Ser Gly Asp Ser Lys Leu Tyr Arg Leu His Pro Cys Arg Ser Leu
 580 585 590
 Gln Ile Arg Gln Tyr Ala Tyr His Ser Asp Arg Ser Ser Thr Ile Pro
 595 600 605
 Ala Met Lys Asp Asp Gly Ile Gly Tyr Lys Val Asp Thr Gly Lys Glu
 610 615 620
 Pro Pro Val Gly Thr Thr Ser Thr Gln Asn Lys Pro Met Thr Trp
 625 630 635 640
 Glu Asp Ile Phe Ile Gln Gln Glu Asn Asp Ser Ile Phe Lys Gln Asn
 645 650 655
 Val Thr Asp Gly Ser Thr Glu Phe Glu Phe Ile Ile Pro Glu Ser Tyr
 660 665 670

<210> 5057

<211> 673

<212> DNA

<213> Homo sapiens

<400> 5057

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 120
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 180
 aattcagtat atgttttggt gaggcagaaa gctggacaga caccacaaga gcgagtggaa
 240
 gaagtcctta gtggcaagct ttttgacaga ttgagagatg aaaatccaga ttttagagag
 300
 aaaattatag caatcaacag cgaactcacc caacctaacc tggctctcag tgaagaagat
 360
 aaagaggtga tcatagattc taccaatatt atattccact gtgcagctac agtaaggttt
 420
 aatgaaaatt taaggtaagt acaagtaatt atataatatt tgaacttcag tatagttatt
 480
 aaaaaatctc attttaattc tacttttttag tcaatttggt ttgaatgtga tttgatacta
 540
 tttgcctatg ttaactgtgg ctttcagtgt cctacagagt gttaaaagaa ttctcttctt
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 660
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 673

<210> 5058

<211> 122
 <212> PRT
 <213> Homo sapiens

<400> 5058
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 20 25 30
 Ser Cys Pro Lys Val Asn Ser Val Tyr Val Leu Val Arg Gln Lys Ala
 35 40 45
 Gly Gln Thr Pro Gln Glu Arg Val Glu Glu Val Leu Ser Gly Lys Leu
 50 55 60
 Phe Asp Arg Leu Arg Asp Glu Asn Pro Asp Phe Arg Glu Lys Ile Ile
 65 70 75 80
 Ala Ile Asn Ser Glu Leu Thr Gln Pro Lys Leu Ala Leu Ser Glu Glu
 85 90 95
 Asp Lys Glu Val Ile Ile Asp Ser Thr Asn Ile Ile Phe His Cys Ala
 100 105 110
 Ala Thr Val Arg Phe Asn Glu Asn Leu Arg
 115 120

<210> 5059
 <211> 480
 <212> DNA
 <213> Homo sapiens

<400> 5059
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 120
 cagctgtgag tctttctcca gggacagtcg gcagccggcc ctaggtgcag agccgatgac
 180
 aaggacccag gctctcagca ggtcttccaa gcagtgtggt agaaaggcag gcaggggtgtg
 240
 gggaagtgga gccaggccac cagtcattgat gtcaagactg agccaggaag caaaggcagg
 300
 cagagagatg gggaggagag ggagcaggag gggactggcc atctctgaga cagaagcgtg
 360
 agtagtgggt ggacttgagg gcaggagagg actgaaaggg cagaggcctg ggcgatgcag
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 480

<210> 5060
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 5060
 Met Ala Ser Pro Leu Leu Pro Leu Leu Pro Ile Ser Leu Pro Ala
 1 5 10 15
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[illegible]

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<210> 5061
<211> 2462
<212> DNA
<213> Homo sapiens
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<400> 5061
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120
acagtctaga agcatgccaa gacagagcat tttctgcaga ccaaagagtc ccgtcaaagt
180
gataaaggac acctggaaa gggcaggcca aggggctggg cccttcccca agggcactgc
240
atttttgtga tgagattaaa aacaaaccaa ctccactatt aaaaatgcta gaaacatgga
300
gatagtttag caccaccatt gattctggaa atatttcagc actcaaactg actgcactga
360
gtttaatgtc ctttctccag tttctctgct gaggaggaaa gaaggaaaac ctggaggaag
420
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480
tccaagggtt tggagctcca gagacatcca ccagtcccca ccagccatg cagtccacat
540
gtcacgctt cagggattac tgaagtctgc cttgccggg agtcacttcc tgcagacctc
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tgagtacctg gtggggaaa ccatctccca tcctgtgtct tggatttaaa gaaaacctgt
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720
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780
tggatgaatg ttcacacac ccaatcta tcataccagg tggcaggctc agcaaactga
840
accaccacag gtgtcagaga tacttgagaa tgactggtac caacaagacg acaaaggagg
900
ttgccttctt ccagatgtg cccaatggag tctgaactct ggttctaatt tgtggagggtg
960
ggctcctact gtatgaccca ttgtggtcac tgctctttga gccatacaac ttgagagact
1020

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atgcatatat tctggaatca gggcctgcaa actcaaagat tggtttgtgg ctggtgactt
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1200
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2280
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2340
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2462

<210> 5062

<211> 136

<212> PRT

<213> Homo sapiens

<400> 5062

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 20           25           30
Val Arg Arg Ser Pro Ser Ser Arg Phe Ser Phe Phe Pro Pro Gln Gln
 35           40           45
Arg Asn Trp Arg Lys Asp Ile Lys Leu Ser Ala Val Asp Leu Ser Ala
 50           55           60
Glu Ile Phe Pro Glu Ser Met Val Val Leu Asn Tyr Leu His Val Ser
 65           70           75           80
Ser Ile Phe Asn Ser Gly Val Gly Leu Phe Leu Ile Ser Ser Gln Lys
 85           90           95
Cys Ser Ala Leu Gly Glu Gly Thr Ser Pro Leu Ala Cys His Phe Pro
100           105           110
Gly Val Leu Tyr His Phe Asp Gly Thr Leu Trp Ser Ala Glu Asn Ala
115           120           125
Leu Ser Trp His Ala Ser Arg Leu
130           135

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<210> 5063

<211> 561

<212> DNA

<213> Homo sapiens

<400> 5063

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120
tctcccttct tagagagaga gtggaagctt ctgagtgtgg cttgggtcgt tctgaaccat
180
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240
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300
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420
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<210> 5064

<211> 110

<212> PRT

<213> Homo sapiens

<400> 5064

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Met Asp Arg Leu Glu Arg Pro Leu Val Asp Leu Pro Leu Leu Leu Asp
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Pro Pro Ser Tyr Val Pro Asp Thr Val Asp Leu Thr Asp Asp Ala Leu
      20           25           30
Ala Arg Lys Tyr Trp Leu Thr Cys Phe Glu Glu Ala Leu Asp Gly Val
      35           40           45
Val Lys Arg Ala Val Ala Ser Gln Pro Asp Ser Val Asp Ala Ala Glu
      50           55           60
Arg Ala Glu Lys Phe Arg Gln Lys Tyr Trp Asn Lys Leu Gln Thr Leu
65           70           75           80
Arg Gln Gln Pro Phe Ala Tyr Gly Thr Leu Thr Val Arg Ser Leu Leu
      85           90           95
Asp Thr Arg Glu His Cys Leu Asn Glu Phe Asn Phe Pro Asp
      100           105           110

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<210> 5065

<211> 370

<212> DNA

<213> Homo sapiens

<400> 5065

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cactactatg aaacgctcaa attccttggtg ggccatctca agaccatcgc tgaccactct
120
gagaaaaaca agatggaacc ccggaacctg gccctgggtct ttgggccgac actggtgagg
180
acgtctgagg acaacatgac agacatgggtg acccacatgc ctgaccgcta caagatcgtg
240
gagacactga tccagcactc agactgggttc ttcagtgcgc aagaggacaa gggagagaga
300
attctaccac ctgtagttca gtcaagtcca agggttcgtg ggcccccaag aaggagccgt
360
acgcccgggc
370

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<210> 5066

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5066

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Ile Glu Asp Ala Arg Glu Arg Met Arg Thr Leu Arg Lys Leu Ile Arg
 1           5           10           15
Asp Leu Pro Gly His Tyr Tyr Glu Thr Leu Lys Phe Leu Val Gly His
      20           25           30
Leu Lys Thr Ile Ala Asp His Ser Glu Lys Asn Lys Met Glu Pro Arg
      35           40           45
Asn Leu Ala Leu Val Phe Gly Pro Thr Leu Val Arg Thr Ser Glu Asp
      50           55           60
Asn Met Thr Asp Met Val Thr His Met Pro Asp Arg Tyr Lys Ile Val
65           70           75           80
Glu Thr Leu Ile Gln His Ser Asp Trp Phe Phe Ser Asp Glu Glu Asp

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<400> 5067
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120
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240
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360
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420
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480
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540
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catcatcaca gcagcctcct cacttgggta ctacagtgtg gaagctgagt gcatatggta
660
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720
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780
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840
gaaaagaatt ggctagatag gggatttttc tgaacactgc aaaaatagaa cgtagcaaaa
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1020
ataagttatt actggtacac acctgcattg cctcaccagt gtattttatt gttattaaat
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1260

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 1380
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 1920
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<210> 5068

<211> 179

<212> PRT

<213> Homo sapiens

<400> 5068

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			20					25					30		
Ala	Leu	Gln	Asn	Glu	Arg	Thr	Glu	Arg	Ile	Arg	Ser	Leu	Leu	Glu	Arg
		35					40					45			
Gln	Ala	Arg	Glu	Ile	Glu	Ala	Phe	Asp	Ser	Glu	Ser	Met	Arg	Leu	Gly
	50					55				60					
Phe	Ser	Asn	Met	Val	Leu	Ser	Asn	Leu	Ser	Pro	Glu	Ala	Phe	Ser	His
65				70					75					80	
Ser	Tyr	Pro	Gly	Ala	Ser	Gly	Trp	Ser	His	Asn	Pro	Thr	Gly	Gly	Pro
			85					90					95		
Gly	Pro	His	Trp	Gly	His	Pro	Met	Gly	Gly	Pro	Pro	Gln	Ala	Trp	Gly
		100					105					110			
His	Pro	Met	Gln	Gly	Gly	Pro	Gln	Pro	Trp	Gly	His	Pro	Ser	Gly	Pro
		115				120				125					
Met	Gln	Gly	Val	Pro	Arg	Gly	Ser	Ser	Met	Gly	Val	Arg	Asn	Ser	Pro
	130					135				140					
Gln	Ala	Leu	Arg	Arg	Thr	Ala	Ser	Gly	Gly	Arg	Thr	Glu	Gln	Gly	Met
145				150				155					160		
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165 170 175
 Ser Tyr Thr

 <210> 5069
 <211> 3655
 <212> DNA
 <213> Homo sapiens

 <400> 5069
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 120
 ggctcgccgc aggagaagga ttcgccctcg acctcgcggt cgggcgggtc cagccggctg
 180
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 240
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 300
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 420
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<211> 255

<212> PRT

<213> Homo sapiens

<400> 5070

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<212> DNA
<213> Homo sapiens
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<211> 76

<212> PRT

<213> Homo sapiens

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			20					25					30		
Ser	Leu	Gln	Ser	Ser	Trp	Asp	Tyr	Arg	His	Ala	Gln	Pro	Cys	Pro	Ala
			35				40					45			
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<211> 1712

<212> DNA

<213> Homo sapiens

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 Thr Thr Val Leu Ser Asp Gln Gln Val Val Glu Leu Ile Pro Gly Gly
 50 55 60
 Ala Gly Ile Val Val Gly Tyr Gly Asp Arg Ser Arg Phe Ile Gln Leu
 65 70 75 80
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 85 90 95
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 100 105 110
 Thr Trp Gln Glu Leu Glu Lys Lys Val Cys Gly Asp Pro Glu Val Thr
 115 120 125
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<212> PRT

<213> Homo sapiens

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			20					25					30		
Cys	Trp	Asp	Gly	Gly	Gly	Ser	Gly	Asn	Phe	Ser	Ser	Pro	Gly	Thr	Leu
		35				40					45				
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	50					55					60				
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<211> 2352

<212> DNA

<213> Homo sapiens

<400> 5077

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<211> 558

<212> PRT

<213> Homo sapiens

<400> 5078

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			20					25					30		
Leu	Gln	Gln	Phe	Asp	Phe	Asn	Val	Asp	Lys	Ala	Val	Gln	Ala	Phe	Val
			35				40					45			
Asp	Gly	Ser	Ala	Ile	Gln	Val	Leu	Lys	Glu	Trp	Asn	Met	Thr	Gly	Lys
	50					55					60				
Lys	Lys	Asn	Asn	Lys	Arg	Lys	Arg	Ser	Lys	Ser	Lys	Gln	His	Gln	Gly
65					70					75				80	
Asn	Lys	Asp	Ala	Lys	Asp	Lys	Val	Glu	Arg	Pro	Glu	Ala	Gly	Pro	Leu
				85					90					95	
Gln	Pro	Gln	Pro	Pro	Gln	Ile	Gln	Asn	Gly	Pro	Met	Asn	Gly	Cys	Glu
			100					105					110		
Lys	Asp	Ser	Ser	Ser	Thr	Asp	Ser	Ala	Asn	Glu	Lys	Pro	Ala	Leu	Ile
	115						120					125			
Pro	Arg	Glu	Lys	Lys	Ile	Ser	Ile	Leu	Glu	Glu	Pro	Ser	Lys	Ala	Leu
	130					135					140				
Arg	Gly	Val	Thr	Glu	Gly	Asn	Arg	Leu	Leu	Gln	Gln	Lys	Leu	Ser	Leu
145					150					155				160	
Asp	Gly	Asn	Pro	Lys	Pro	Ile	His	Gly	Thr	Thr	Glu	Arg	Ser	Asp	Gly
				165					170					175	
Leu	Gln	Trp	Ser	Ala	Glu	Gln	Pro	Cys	Asn	Pro	Ser	Lys	Pro	Lys	Ala
			180					185					190		
Lys	Thr	Ser	Pro	Val	Lys	Ser	Asn	Thr	Pro	Ala	Ala	His	Leu	Glu	Ile
	195						200					205			
Lys	Pro	Asp	Glu	Leu	Ala	Lys	Lys	Arg	Gly	Pro	Asn	Ile	Glu	Lys	Ser
	210					215					220				
Val	Lys	Asp	Leu	Gln	Arg	Cys	Thr	Val	Ser	Leu	Thr	Arg	Tyr	Arg	Val
225					230					235				240	
Met	Ile	Lys	Glu	Glu	Val	Asp	Ser	Ser	Val	Lys	Lys	Ile	Lys	Ala	Ala
				245					250					255	
Phe	Ala	Glu	Leu	His	Asn	Cys	Ile	Ile	Asp	Lys	Glu	Val	Ser	Leu	Met


```

                260                265                270
Ala Glu Met Asp Lys Val Lys Glu Glu Ala Met Glu Ile Leu Thr Ala
      275                280                285
Arg Gln Lys Lys Ala Glu Glu Leu Lys Arg Leu Thr Asp Leu Ala Ser
      290                295                300
Gln Met Ala Glu Met Gln Leu Ala Glu Leu Arg Ala Glu Ile Lys His
305                310                315                320
Phe Val Ser Glu Arg Lys Tyr Asp Glu Glu Leu Gly Lys Ala Ala Arg
      325                330                335
Phe Ser Cys Asp Ile Glu Gln Leu Lys Ala Gln Ile Met Leu Cys Gly
      340                345                350
Glu Ile Thr His Pro Lys Asn Asn Tyr Ser Ser Arg Thr Pro Cys Ser
      355                360                365
Ser Leu Leu Pro Leu Leu Asn Ala His Ala Ala Thr Ser Gly Lys Gln
      370                375                380
Ser Asn Phe Ser Arg Lys Ser Ser Thr His Asn Lys Pro Ser Glu Gly
385                390                395                400
Lys Ala Ala Asn Pro Lys Met Val Ser Ser Leu Pro Ser Thr Ala Asp
      405                410                415
Pro Ser His Gln Thr Met Pro Ala Asn Lys Gln Asn Gly Ser Ser Asn
      420                425                430
Gln Arg Arg Arg Phe Asn Pro Gln Tyr His Asn Asn Arg Leu Asn Gly
      435                440                445
Pro Ala Lys Ser Gln Gly Ser Gly Asn Glu Ala Glu Pro Leu Gly Lys
      450                455                460
Gly Asn Ser Arg His Glu His Arg Arg Gln Pro His Asn Gly Phe Arg
465                470                475                480
Pro Lys Asn Lys Gly Gly Ala Lys Asn Gln Glu Ala Ser Leu Gly Met
      485                490                495
Lys Thr Pro Glu Ala Pro Ala His Ser Glu Lys Pro Arg Arg Arg Gln
      500                505                510
His Ala Ala Asp Thr Ser Glu Ala Arg Pro Phe Arg Gly Ser Val Gly
      515                520                525
Arg Val Ser Gln Cys Asn Leu Cys Pro Thr Arg Ile Glu Val Ser Thr
      530                535                540
Asp Ala Ala Val Leu Ser Val Pro Ala Val Thr Leu Val Ala
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<210> 5079

<211> 1338

<212> DNA

<213> Homo sapiens

<400> 5079

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120
ccacgtttcc tttaagcggg gctggcggag ccgcaaggcg gcaaggaact ggattgcat
180
tggtcagcac gtgcctcgtt cggcgggtaca attggctgag gcgctgggccc ttgggaagca
240
ttccccgacg ggattggtcg tcgctctcgc agagcccgc tcccgagta caagcggccc
300

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ccgggtcggg tgggaggagg ggactccggg aggaggaaca tggcgggtggc ggacctcgct
 360
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 420
 cactcggctc cccgctccgg ggctccggct gcagagagca aggagatcgt gcgcgggtac
 480
 aagtgggctg agtaccatgc ggacatctac gacaaagtgt cgggcgacat gcagaagcaa
 540
 ggctgcgact gtgagtgtct gggcggcggg cgcactctcc accagagtca ggacaagaag
 600
 attcacgtgt acggctattc catggtgagc cgcagccccg tcccgccctg ccggaggccc
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 cagtaccagc ttcgaggccc acctgagcct gctgccctga cccgtggccc cagctgagca
 720
 cgcaggcttc ctgggggtct cccagggtcg gcggcagagc cctccctcca gggccattg
 780
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 900
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 960
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 1020
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 1080
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 1200
 gcactcctct tgcagggtg gccctgcctg ctcttcggc agcctctggt gacgtgctgt
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 1320
 aaaaaaaaaa aaaaaaaaa
 1338

<210> 5080

<211> 165

<212> PRT

<213> Homo sapiens

<400> 5080

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Arg	Arg	Ala	Arg	Leu	Pro	Gln	Tyr	Lys	Arg	Pro	Pro	Gly	Arg	Val	Gly
		20						25				30			
Gly	Gly	Asp	Ser	Gly	Arg	Arg	Asn	Met	Ala	Val	Ala	Asp	Leu	Ala	Leu
		35					40					45			
Ile	Pro	Asp	Val	Asp	Ile	Asp	Ser	Asp	Gly	Val	Phe	Lys	Tyr	Val	Leu
	50					55				60					
Ile	Arg	Val	His	Ser	Ala	Pro	Arg	Ser	Gly	Ala	Pro	Ala	Ala	Glu	Ser
65				70					75					80	
Lys	Glu	Ile	Val	Arg	Gly	Tyr	Lys	Trp	Ala	Glu	Tyr	His	Ala	Asp	Ile

```

      85              90              95
Tyr Asp Lys Val Ser Gly Asp Met Gln Lys Gln Gly Cys Asp Cys Glu
      100              105              110
Cys Leu Gly Gly Gly Arg Ile Ser His Gln Ser Gln Asp Lys Lys Ile
      115              120              125
His Val Tyr Gly Tyr Ser Met Val Ser Arg Ser Pro Val Pro Pro Cys
      130              135              140
Arg Arg Pro Gln Tyr Gln Leu Arg Gly Pro Pro Glu Pro Ala Ala Leu
      145              150              155              160
Thr Arg Gly Pro Ser
      165

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<210> 5081
 <211> 561
 <212> DNA
 <213> Homo sapiens

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<400> 5081
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120
atcttcttta agtttgatcc tcgccctgtt tccaaaaacg cgtacaggta acccctcgc
180
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240
ctgctgtgtg caggaagggtg tgtgggccag gacggggctg cacaggcctg gcactgcctt
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360
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420
gccaacaggg atgaattcta cagccgaccc tccaagttag ctgacttctg ggggaacaac
480
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540
atcagcacac gtggcaagct g
561

```

<210> 5082
 <211> 111
 <212> PRT
 <213> Homo sapiens

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<400> 5082
Met Pro Pro Lys Leu Leu Cys Ala Gly Arg Cys Val Gly Gln Asp Gly
1      5      10      15
Ala Ala Gln Ala Trp His Cys Pro Pro Gly Gln Gly His Ser Val Trp
20     25     30
Asp Ala Val Arg Met Pro Leu Gly Ala Gly Thr Pro Val Asn Val Gln
35     40     45
Arg Arg Glu Asp Ser Ala Thr Glu Gly Ser His Arg Leu Ile Leu Ala
50     55     60
Ala Asn Arg Asp Glu Phe Tyr Ser Arg Pro Ser Lys Leu Ala Asp Phe

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65		70		75		80									
Trp	Gly	Asn	Asn	Asn	Glu	Ile	Leu	Ser	Gly	Leu	Asp	Met	Glu	Glu	Gly
			85					90					95		
Lys	Glu	Gly	Gly	Thr	Trp	Leu	Gly	Ile	Ser	Thr	Arg	Gly	Lys	Leu	
			100					105					110		

<210> 5083

<211> 1856

<212> DNA

<213> Homo sapiens

<400> 5083

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120
ccatggcaga gccagaccga ctacagattca gactctgagg gaggagccgc tggtagagaa
180
gcagacatgg acttctctgc gaacttattc tccagacgc tcagcctggg cagccagaag
240
gagcgtctgc tggacgagct gaccttggaa ggggtggccc ggtacatgca gagcgaacgc
300
tgtcgagag tcactctgtt ggtgggagct ggaatctcca catccgcagg catccccgac
360
tttcgctctc catccaccgg cctctatgac aacctagaga agtaccatct tccctacca
420
gaggccatct ttgagatcag ctatttcaag aaacatccgg aacccttctt cgccctcgcc
480
aaggaactct atcctgggca gttcaagcca accatctgtc actacttcat gcgcctgctg
540
aaggacaagg ggctactcct gcgctgctac acgcagaaca tagataccct ggagcgaata
600
gccgggctgg aacaggagga cttgggtggag gcgcacggca cttcttacac atcacactgc
660
gtcagcgcca gctgccggca cgaatacccg ctaagctgga tgaaagagaa gatcttctct
720
gaggtgacgc ccaagtgtga agactgtcag agcctggtga agcctgatat cgtctttttt
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840
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900
gcacccctct ccacccctcg cctgctcatc aacaaggaga aagctggcca gtcggaccct
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1020
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1140
tcgggggcgg ggggtcccaa cccagcact tcagcttccc ccaagaagtc cccgccacct
1200
gccaaggacg aggccaggac aacagagagg gagaaacccc agtgacagct gcattctcca
1260

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 1320
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 1856

<210> 5084

<211> 396

<212> PRT

<213> Homo sapiens

<400> 5084

Arg	Asp	Thr	Val	Val	Gly	Asp	Gly	Thr	Glu	Arg	Ser	Val	Thr	Ala	Ser
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Arg	Ala	Ser	Ala	Pro	Arg	Pro	Trp	Gln	Ser	Gln	Thr	Asp	Ser	Asp	Ser
			20					25					30		
Asp	Ser	Glu	Gly	Gly	Ala	Ala	Gly	Gly	Glu	Ala	Asp	Met	Asp	Phe	Leu
		35					40					45			
Arg	Asn	Leu	Phe	Ser	Gln	Thr	Leu	Ser	Leu	Gly	Ser	Gln	Lys	Glu	Arg
	50					55					60				
Leu	Leu	Asp	Glu	Leu	Thr	Leu	Glu	Gly	Val	Ala	Arg	Tyr	Met	Gln	Ser
65					70				75					80	
Glu	Arg	Cys	Arg	Arg	Val	Ile	Cys	Leu	Val	Gly	Ala	Gly	Ile	Ser	Thr
			85					90					95		
Ser	Ala	Gly	Ile	Pro	Asp	Phe	Arg	Ser	Pro	Ser	Thr	Gly	Leu	Tyr	Asp
		100						105					110		
Asn	Leu	Glu	Lys	Tyr	His	Leu	Pro	Tyr	Pro	Glu	Ala	Ile	Phe	Glu	Ile
		115					120					125			
Ser	Tyr	Phe	Lys	Lys	His	Pro	Glu	Pro	Phe	Phe	Ala	Leu	Ala	Lys	Glu
	130					135					140				
Leu	Tyr	Pro	Gly	Gln	Phe	Lys	Pro	Thr	Ile	Cys	His	Tyr	Phe	Met	Arg
145					150					155				160	
Leu	Leu	Lys	Asp	Lys	Gly	Leu	Leu	Leu	Arg	Cys	Tyr	Thr	Gln	Asn	Ile
			165					170					175		
Asp	Thr	Leu	Glu	Arg	Ile	Ala	Gly	Leu	Glu	Gln	Glu	Asp	Leu	Val	Glu
		180						185					190		
Ala	His	Gly	Thr	Phe	Tyr	Thr	Ser	His	Cys	Val	Ser	Ala	Ser	Cys	Arg
		195					200					205			
His	Glu	Tyr	Pro	Leu	Ser	Trp	Met	Lys	Glu	Lys	Ile	Phe	Ser	Glu	Val

```

      210              215              220
Thr Pro Lys Cys Glu Asp Cys Gln Ser Leu Val Lys Pro Asp Ile Val
225              230              235              240
Phe Phe Gly Glu Ser Leu Pro Ala Arg Phe Phe Ser Cys Met Gln Ser
      245              250              255
Asp Phe Leu Lys Val Asp Leu Leu Leu Val Met Gly Thr Ser Leu Gln
      260              265              270
Val Gln Pro Phe Ala Ser Leu Ile Ser Lys Ala Pro Leu Ser Thr Pro
      275              280              285
Arg Leu Leu Ile Asn Lys Glu Lys Ala Gly Gln Ser Asp Pro Phe Leu
      290              295              300
Gly Met Ile Met Gly Leu Gly Gly Gly Met Asp Phe Asp Ser Lys Lys
305              310              315              320
Ala Tyr Arg Asp Val Ala Trp Leu Gly Glu Cys Asp Gln Gly Cys Leu
      325              330              335
Ala Leu Ala Glu Leu Leu Gly Trp Lys Lys Glu Leu Glu Asp Leu Val
      340              345              350
Arg Arg Glu His Ala Ser Ile Asp Ala Gln Ser Gly Ala Gly Val Pro
      355              360              365
Asn Pro Ser Thr Ser Ala Ser Pro Lys Lys Ser Pro Pro Pro Ala Lys
      370              375              380
Asp Glu Ala Arg Thr Thr Glu Arg Glu Lys Pro Gln
385              390              395

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<210> 5085

<211> 2964

<212> DNA

<213> Homo sapiens

<400> 5085

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120
tgaaatctag cccgtccgag cgcgagtcca acggccgcgg ccgcaccaag gccccctcag
180
accgtgccat gggtgacagt gatgacgagt acgatcgaag gcgcagggac aagttcagaa
240
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300
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360
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420
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480
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540
cctgacgtcc acatcatgca gcacatgtc ctgcctatcc aggccaggct gggcagcatt
600
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660
tccctggatg actcggtgga tgagacggag gccgtcaagc gctataatga ctacaagctg
720

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840
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<210> 5086

<211> 792

<212> PRT

<213> Homo sapiens

<400> 5086

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Leu	Xaa	Gly	Gly	Gly	Gly	Pro	Thr	Tyr	Gly	Pro	Pro	Gln	Pro	Trp	Gly
			20					25					30		
His	Pro	Asp	Val	His	Ile	Met	Gln	His	His	Val	Leu	Pro	Ile	Gln	Ala
		35				40						45			
Arg	Leu	Gly	Ser	Ile	Ala	Glu	Ile	Asp	Leu	Gly	Val	Pro	Pro	Pro	Val
	50					55					60				
Met	Lys	Thr	Phe	Lys	Glu	Phe	Leu	Leu	Ser	Leu	Asp	Asp	Ser	Val	Asp
65					70					75					80
Glu	Thr	Glu	Ala	Val	Lys	Arg	Tyr	Asn	Asp	Tyr	Lys	Leu	Asp	Phe	Arg
				85					90					95	
Arg	Gln	Gln	Met	Gln	Asp	Phe	Phe	Leu	Ala	His	Lys	Asp	Glu	Glu	Trp
			100					105					110		
Phe	Arg	Ser	Lys	Tyr	His	Pro	Asp	Glu	Val	Gly	Lys	Arg	Arg	Gln	Glu
		115					120					125			
Ala	Arg	Gly	Ala	Leu	Gln	Asn	Arg	Leu	Arg	Val	Phe	Leu	Ser	Leu	Met
	130					135					140				
Glu	Thr	Gly	Trp	Phe	Asp	Asn	Leu	Leu	Leu	Asp	Ile	Asp	Lys	Ala	Asp
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<212> PRT

<213> Homo sapiens

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Gln	Gly	Arg	Ser	Cys	Pro	Gly	Thr	Pro	Asp	Ile	Ala	Asp	Val	Ala	Glu
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Leu	Arg	Val	Glu	Leu	Thr	His	Gly	Ala	Glu	Thr	Leu	Thr	Leu	Trp	Gln
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Val	Pro	Gly	Phe	Glu	Val	Ser	Ala	Ala	Gly	Leu	Glu	Leu	Gly	Leu	Gly
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Leu	Glu	Asp	Glu	Leu	Arg	Met	Glu	Pro	Leu	Gly	Leu	Glu	Gly	Leu	Asn
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Lys Arg Glu Arg Lys Gln Ser Phe Met Gly Asn Ser Gly Asn Ser Trp
          20           25           30
Ser His Thr Pro Phe Pro Lys Leu Glu Leu Gly Leu Gly Pro Gln Pro
          35           40           45
Met Ala Pro Arg Glu Leu Pro Thr Cys Ser Ile Cys Leu Glu Arg Leu
 50           55           60
Arg Asp Pro Ile Ser Leu Asp Cys Gly His Asp Phe Cys Ile Arg Cys
65           70           75           80
Phe Ser Thr His Arg Leu Pro Gly Cys Glu Pro Pro Cys Cys Pro Glu
          85           90           95
Cys Arg Lys Ile Cys Lys Gln Lys Arg Gly Leu Arg Ser Leu Gly Glu
          100          105          110
Lys Met Lys Leu Leu Pro Gln Arg Pro Leu Pro Pro Ala Leu Gln Glu
          115          120          125
Thr Cys Pro Val Arg Ala Glu Pro Leu Leu Leu Val Arg Ile Asn Ala
          130          135          140
Ser Gly Gly Leu Ile Leu Arg Met Gly Ala Ile Asn Arg Cys Leu Lys
          145          150          155          160
His Pro Leu Ala Arg Asp Thr Pro Val Cys Leu Leu Ala Val Leu Gly
          165          170          175
Glu Gln His Ser Gly Lys Ser Phe Leu Leu Asn His Leu Leu Gln Gly
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Leu Pro Gly Leu Glu Ser Gly Glu Gly Gly Arg Pro Arg Gly Gly Glu
          195          200          205
Ala Ser Leu Gln Gly Cys Arg Trp Gly Ala Asn Gly Leu Ala Gly Gly
          210          215          220
Ile Trp Met Trp Ser His Pro Phe Leu Leu Gly Lys Glu Gly Lys Lys
          225          230          235          240
Val Ala Val Phe Leu Val Asp Thr Gly Asp Ala Met Ser Pro Glu Leu
          245          250          255
Ser Arg Glu Thr Arg Ile Lys Leu Cys Ala Leu Thr Thr Met Leu Ser
          260          265          270
Ser Tyr Gln Ile Leu Ser Thr Ser Gln Glu Leu Lys Asp Thr Asp Leu
          275          280          285
Asp Tyr Leu Glu Met Phe Val His Val Ala Glu Val Met Gly Lys His
          290          295          300
Tyr Gly Met Val Pro Ile Gln His Leu Asp Leu Leu Val Arg Asp Ser
          305          310          315          320
Ser His Pro Asn Lys Ala Gly Gln Gly His Val Gly Asn Ile Phe Gln
          325          330          335
Arg Leu Ser Gly Arg Tyr Pro Lys Val Gln Glu Leu Leu Gln Gly Lys
          340          345          350
Arg Ala Arg Cys Cys Leu Leu Pro Ala Pro Gly Arg Arg Arg Met Asn
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Gln Gly His Ala Ser Pro Gly Gly Asp Thr Asp Asp Asp Phe Arg His
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Leu Leu Gly Ala Tyr Val Ser Asp Val Leu Ser Ala Ala Pro Gln His

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385          390          395          400
Ala Lys Ser Arg Cys Gln Gly Tyr Trp Asn Glu Gly Arg Ala Val Ala
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Arg Gly Asp Arg Arg Leu Leu Thr Gly Gln Gln Leu Ala Gln Glu Ile
          420          425          430
Lys Asn Leu Ser Gly Trp Met Gly Arg Thr Gly Pro Gly Phe Thr Ser
          435          440          445
Pro Asp Glu Met Ala Ala Gln Leu His Asp Leu Arg Lys Val Glu Ala
          450          455          460
Ala Lys Arg Glu Phe Glu Glu Tyr Val Arg Gln Gln Asp Val Ala Thr
465          470          475          480
Lys Arg Ile Phe Ser Ala Leu Arg Val Leu Pro Asp Thr Met Arg Asn
          485          490          495
Leu Leu Ser Thr Gln Lys Asp Ala Ile Leu Ala Arg His Gly Val Ala
          500          505          510
Leu Leu Cys Lys Gly Arg Asp Gln Thr Leu Glu Ala Leu Glu Ala Glu
          515          520          525
Leu Gln Ala Thr Ala Lys Ala Phe Met Asp Ser Tyr Thr Met Arg Phe
530          535          540
Cys Gly His Leu Ala Ala Val Gly Gly Ala Val Gly Ala Gly Leu Met
545          550          555          560
Gly Leu Ala Gly Gly Val Val Gly Ala Gly Met Ala Ala Ala Leu
          565          570          575
Ala Ala Glu Ala Gly Met Val Ala Ala Gly Ala Ala Val Gly Ala Thr
          580          585          590
Gly Ala Ala Val Val Gly Gly Gly Val Gly Ala Gly Leu Ala Ala Thr
          595          600          605
Val Gly Cys Met Glu Lys Glu Glu Asp Glu Arg Leu Leu Glu Gly Asp
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Arg Glu Pro Leu Leu Gln Glu Glu
625          630

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<210> 5093
 <211> 1662
 <212> DNA
 <213> Homo sapiens

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240
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ctgtggagcc tctcctatac caaattgccc tccctctcct ataccaaatg gaagtgcctc
360
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420
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480

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 600
 gccctgacct ctgacctcta cgcacccatg gtggctggcg cgctggcccc cctgggcacc
 660
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<210> 5094

<211> 365

<212> PRT

<213> Homo sapiens

<400> 5094

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Ala	Ser	Gly	Thr	Gly	Ala	Val	Val	Thr	Ser	Leu	Phe	Met	Thr	Pro	Leu
		20					25				30				
Asp	Val	Val	Lys	Val	Arg	Leu	Gln	Ser	Gln	Arg	Pro	Ser	Met	Ala	Ser
		35				40					45				
Glu	Leu	Met	Pro	Ser	Ser	Arg	Leu	Trp	Ser	Leu	Ser	Tyr	Thr	Lys	Leu

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      50              55              60
Pro Ser Leu Ser Tyr Thr Lys Trp Lys Cys Leu Leu Tyr Cys Asn Gly
65              70              75              80
Val Leu Glu Pro Leu Tyr Leu Cys Pro Asn Gly Ala Arg Cys Ala Thr
      85              90              95
Trp Phe Gln Asp Pro Thr Arg Phe Thr Gly Thr Met Asp Ala Phe Val
      100             105             110
Lys Ile Val Arg His Glu Gly Thr Arg Thr Leu Trp Ser Gly Leu Pro
      115             120             125
Ala Thr Leu Val Met Thr Val Pro Ala Thr Ala Ile Tyr Phe Thr Ala
      130             135             140
Tyr Asp Gln Leu Lys Ala Phe Leu Cys Gly Arg Ala Leu Thr Ser Asp
145             150             155             160
Leu Tyr Ala Pro Met Val Ala Gly Ala Leu Ala Arg Leu Gly Thr Val
      165             170             175
Thr Val Ile Ser Pro Leu Glu Leu Met Arg Thr Lys Leu Gln Ala Gln
      180             185             190
His Val Ser Tyr Arg Glu Leu Gly Ala Cys Val Arg Thr Ala Val Ala
      195             200             205
Gln Gly Gly Trp Arg Ser Leu Trp Leu Gly Trp Gly Pro Thr Ala Leu
      210             215             220
Arg Asp Val Pro Phe Ser Val His Pro Pro Pro Gln Ala Leu Tyr Trp
225             230             235             240
Phe Asn Tyr Glu Leu Val Lys Ser Trp Leu Asn Gly Leu Arg Pro Lys
      245             250             255
Asp Gln Thr Ser Val Gly Met Ser Phe Val Ala Gly Gly Ile Ser Gly
      260             265             270
Thr Val Ala Ala Val Leu Thr Leu Pro Phe Asp Val Val Lys Thr Gln
      275             280             285
Arg Gln Val Ala Leu Gly Ala Met Glu Ala Val Arg Val Asn Pro Leu
      290             295             300
His Val Asp Ser Thr Trp Leu Leu Leu Arg Arg Ile Arg Ala Glu Ser
305             310             315             320
Gly Thr Lys Gly Leu Phe Ala Gly Phe Leu Pro Arg Ile Ile Lys Ala
      325             330             335
Ala Pro Ser Cys Ala Ile Met Ile Ser Thr Tyr Glu Phe Gly Lys Ser
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Phe Phe Gln Arg Leu Asn Gln Asp Arg Leu Leu Gly Gly
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<210> 5095

<211> 2230

<212> DNA

<213> Homo sapiens

<400> 5095

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120
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aaaaaaattc ctcttaattt tactgatggc cccccgtctc tcaggtgggc tgagagtggc
240

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acttggtaaa cagtgtgtgt ttaatccagc ctctgcctct gactaccttt aagaccagga
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<210> 5096
 <211> 153
 <212> PRT
 <213> Homo sapiens

<400> 5096
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 35 40 45
 Gln Gln His Phe Pro Val Gly Thr Ala Pro Gly Asn Pro Val Pro Ser
 50 55 60
 Glu Gln Gly Gly Arg Thr His Pro Ser Leu Ile Arg Ile Trp Ala Arg
 65 70 75 80
 Arg Ala Gln Gln Gly Arg Leu Leu Arg Leu Pro Thr Ser Gln His Arg
 85 90 95
 Leu Ser Gly Leu Asn Pro Ser Val Leu Phe Pro Ser Trp Leu Ile Gly
 100 105 110
 Arg Pro Phe Ala Gly Thr His Cys Phe Asn Leu Thr Leu Pro Pro Pro
 115 120 125
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<210> 5097
 <211> 3074
 <212> DNA
 <213> Homo sapiens

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<210> 5098

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5098

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      35                40                45
Thr Glu Ser Arg Cys Val Ser Gln Ala Gly Val Gln Arg Gly Asp Leu
      50                55                60
Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Gln Phe Ser Cys Leu
65                70                75                80
Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Val Pro Pro His Pro Ala
      85                90                95
Asn Phe Cys Ile Phe Ser Arg Asn Gly Val Ser Pro His Trp Pro Gly
      100                105                110
Trp Ser

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 <211> 801
 <212> DNA
 <213> Homo sapiens

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<210> 5100
 <211> 102
 <212> PRT
 <213> Homo sapiens

<400> 5100

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 35 40 45
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 50 55 60
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 85 90 95
 Lys Lys Lys Lys Lys Lys
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<210> 5101

<211> 1711

<212> DNA

<213> Homo sapiens

<400> 5101

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<210> 5102

<211> 436

<212> PRT

<213> Homo sapiens

<400> 5102

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		20						25					30		
Pro	Thr	Ala	Val	Thr	Ala	Pro	His	Ser	Ser	Ser	Trp	Asp	Thr	Tyr	Tyr
		35					40					45			
Gln	Pro	Arg	Ala	Leu	Glu	Lys	His	Ala	Asp	Ser	Ile	Leu	Ala	Leu	Ala
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Ser	Val	Phe	Trp	Ser	Ile	Ser	Tyr	Tyr	Ser	Ser	Pro	Phe	Ala	Phe	Phe
65				70					75					80	
Tyr	Leu	Tyr	Arg	Lys	Gly	Tyr	Leu	Ser	Leu	Ser	Lys	Val	Val	Pro	Phe
			85					90						95	
Ser	His	Tyr	Ala	Gly	Thr	Leu	Leu	Leu	Leu	Leu	Ala	Gly	Val	Ala	Cys
			100					105					110		
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		115					120					125			
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Gln	Leu	Ala	Asn	Tyr	Asn	Phe	Asp	Phe	Arg	Ser	Trp	Pro	Val	Asp	Phe
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Arg Arg Gly Val Ala Leu Leu Arg Pro Glu Pro Leu His Arg Gly Thr
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Ser Tyr Leu Val Ala His Thr Leu Gly Arg Arg Met Leu Tyr Pro Gly
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Ser Val Tyr Leu Leu Gln Lys Ala Leu Met Pro Ala Leu Leu Gln Gly
225          230          235          240
Gln Ala Arg Leu Val Glu Glu Cys Asn Gly Arg Arg Ala Lys Leu Leu
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Ala Cys Asp Gly Asn Glu Ile Asp Thr Met Phe Val Asp Arg Arg Gly
          260          265          270
Thr Ala Glu Pro Gln Gly Gln Lys Leu Val Ile Cys Cys Glu Gly Asn
          275          280          285
Ala Gly Phe Tyr Glu Val Gly Cys Val Ser Thr Pro Leu Glu Ala Gly
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Tyr Ser Val Leu Gly Trp Asn His Pro Gly Phe Ala Gly Ser Thr Gly
305          310          315          320
Val Pro Phe Pro Gln Asn Glu Ala Asn Ala Met Asp Val Val Val Gln
          325          330          335
Phe Ala Ile His Arg Leu Gly Phe Gln Pro Gln Asp Ile Val Ile Tyr
          340          345          350
Ala Trp Ser Ile Gly Gly Phe Thr Ala Thr Trp Ala Ala Met Ser Tyr
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Pro Asp Val Ser Ala Met Ile Leu Asp Ala Ser Phe Asp Asp Leu Val
          370          375          380
Pro Leu Ala Leu Lys Val Met Pro Asp Ser Trp Arg Gly Leu Val Thr
385          390          395          400
Arg Thr Val Arg Gln His Leu Asn Leu Asn Asn Ala Glu Gln Leu Cys
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Arg Tyr Gln Gly Pro Val Leu Leu Ile Arg Arg Thr Lys Asp Glu Ile
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Ile Thr Thr Thr
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<210> 5103

<211> 1982

<212> DNA

<213> Homo sapiens

<400> 5103

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1980

99
1982

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<211> 167
<212> PRT
<213> Homo sapiens

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35 40 45
Pro Ala Ala Ser Leu Lys Thr Thr Lys Asp Leu Met Ser Lys Ser Leu
50 55 60
Ser Gly Val Cys Pro Ala Ser Ser Gly Leu Leu Arg Thr Pro His Pro
65 70 75 80
Glu Gly Ala Arg Arg Pro Ala Gly Leu Ala Gly Pro Gly Ser Ser Leu
85 90 95
Thr Ala Gly Trp Thr Ala Phe Arg Thr Cys Pro Gly Cys Ser Ala Phe
100 105 110
Val Ala Gly Ser Asn Trp Arg Asn Leu Glu Arg Gly Ser Cys Ala Cys
115 120 125
Lys Asp Gly Phe Cys Val Ser Ser Gly Phe Leu Leu Ser Gly Pro Gly
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Ser Ser Leu Val Pro Tyr Arg Pro Leu Phe Val His Gly Leu Ala Leu
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Tyr Glu Arg Ala Met Cys Phe
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<210> 5105
<211> 1359
<212> DNA
<213> Homo sapiens

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<210> 5106

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5106

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Pro	Ala	Ala	Ala	Ala	Gly	Leu	Ala	Gly	Pro	Arg	Ala	Ser	Thr	Ala	Lys
			20					25					30		
Gly	Asp	Val	Ile	Cys	Tyr	Tyr	Gly	Asn	Arg	Gly	Glu	Pro	Asp	Pro	Ile
		35					40					45			
Val	Leu	Thr	Pro	Gly	Thr	Tyr	Gly	Leu	Ser	Asn	Ala	Leu	Leu	Glu	Thr
	50					55					60				
Pro	Trp	Arg	Lys	Leu	Cys	Phe	Gly	Lys	Gln	Leu	Phe	Leu	Glu	Ala	Val
65					70					75				80	
Glu	Arg	Ser	Gln	Ala	Leu	Pro	Lys	Asp	Val	Leu	Ile	Ala	Ser	Leu	Leu
			85						90					95	
Asp	Val	Leu	Asn	Asn	Glu	Glu	Ala	Gln	Leu	Pro	Asp	Pro	Ala	Ile	Glu
		100						105					110		
Asp	Gln	Gly	Gly	Glu	Tyr	Val	Gln	Pro	Met	Leu	Ser	Lys	Tyr	Ala	Ala
		115					120						125		
Val	Cys	Val	Arg	Cys	Pro	Gly	Tyr	Gly	Thr	Arg	Thr	Asn	Thr	Ile	Ile

130		135		140	
Leu Val Asp Ala Asp Gly His Val Thr Phe Thr Glu Arg Ser Met Met					
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Gln Ser					

<210> 5107
 <211> 1207
 <212> DNA
 <213> Homo sapiens

<400> 5107
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<210> 5108
<211> 83
<212> PRT
<213> Homo sapiens

<400> 5108
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20 25 30
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35 40 45
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Arg
50 55 60
Val Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Arg Val
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Ser Pro Cys

<210> 5109
<211> 651
<212> DNA
<213> Homo sapiens

<400> 5109
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<210> 5110
<211> 206
<212> PRT

<213> Homo sapiens

<400> 5110

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      20             25             30
Gln Glu Ala Ser Asp Asn Cys Phe Met Asp Ser Asp Ile Lys Val Leu
      35             40             45
Glu Asp Gln Phe Asp Glu Ile Ile Val Asp Ile Ala Thr Lys Arg Lys
      50             55             60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
65             70             75             80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85             90             95
Leu Lys Tyr Asp Pro Asp Pro Val Leu Asn Gly Asn Ala Phe Asn Phe
      100            105            110
Ser Pro Phe Asn Met Met Leu Ala Val Asp Leu Ser Tyr Met Val Phe
      115            120            125
Ile Thr Ser Ala Pro His Met Glu Asn Leu Lys Cys Arg Gly Glu Thr
      130            135            140
Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu Pro Ala Leu Ile
145            150            155            160
Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met Gln Pro Val Ile
      165            170            175
His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser Cys His Arg Lys
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Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile Glu Thr
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<210> 5111

<211> 2247

<212> DNA

<213> Homo sapiens

<400> 5111

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agtcgtgtga ctcaggaatg ggggtagatc catgtcctcc actgtcccc attagttctg
2040
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2100
gagccttgta gggaggcctc tacacagaag aaagcagccc ccatgtccca gccacttctg
2160

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<210> 5112
 <211> 581
 <212> PRT
 <213> Homo sapiens

<400> 5112
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 Arg Gly Gly Lys Asp Ala Ser Val Ala His Glu Val Ala Ser Leu Ala
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 Leu Pro Trp Phe Ala Val Val Leu Gly Tyr Arg Glu Arg Pro Arg Val
 35 40 45
 Ser Gly Arg Pro Ser Leu Gly Ala Pro Gln Arg Leu Arg Ala Tyr Gly
 50 55 60
 Gly Arg Lys Gly Leu Glu Ala Ala Pro Trp Val Thr Thr Ala Arg Pro
 65 70 75 80
 Thr Phe Pro His Val Ala Ala Lys Thr Gly Ser Gly Ala Ser Ile Gly
 85 90 95
 Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala
 100 105 110
 Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala
 115 120 125
 Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser
 130 135 140
 Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser
 145 150 155 160
 Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser
 165 170 175
 Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala
 180 185 190
 Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg
 195 200 205
 Phe Leu Ala Ala Gln Lys Gly Ala Tyr Pro Ile Ile Phe Thr Ala Arg
 210 215 220
 Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Leu Gln Ser Leu Asn
 225 230 235 240
 Ala Leu Ser Val Leu Thr Asp Gly Gln Pro Asp Leu Leu Asp Ala Gln
 245 250 255
 Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala
 260 265 270
 Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys
 275 280 285
 His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu
 290 295 300
 Leu Thr Gly Ala Ile Thr His His Gly His His Thr Asp Val Val Arg
 305 310 315 320
 Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Asp Ile Arg
 325 330 335
 Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu

340 345 350
 Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp
 355 360 365
 Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
 370 375 380
 Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
 385 390 395 400
 Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
 405 410 415
 Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
 420 425 430
 Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
 435 440 445
 Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
 450 455 460
 Gln Val Trp Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
 465 470 475 480
 Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
 485 490 495
 Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
 500 505 510
 Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
 515 520 525
 Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
 530 535 540
 Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
 545 550 555 560
 Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
 565 570 575
 Gly Asn Leu Ala Pro
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<210> 5113

<211> 472

<212> DNA

<213> Homo sapiens

<400> 5113

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 120
 attggcacgc agcgcggagc ctggcacctg cagtgtagac aactggcca ccgctcagtg
 180
 caagagggcc cctttgctaa tgtgcacagc tctttatgcc ttttttcccta tgcctttttg
 240
 gattggagca agagattttt ttttccaagt aaagaacaat ttatgttcct aaatactttt
 300
 tttccttgac atgatgaagt tgagcaaggt ggctatagaa ctttttttct taattttatt
 360
 gcccaagtaa tgttctttac aaagtaggga aatacagata cataaaaaga agactgccaa
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 472

<210> 5114
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 5114
 Met Val Gln Pro Leu Leu His Val Pro Pro Val Gly Leu Cys Asp Leu
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 Ser Pro Gly Thr Leu Thr Arg Cys Leu Phe Cys Ser Pro Leu Asn Ser
 20 25 30
 Met His Leu Thr Pro Val Ile Gly Thr Gln Arg Gly Ala Trp His Leu
 35 40 45
 Gln Cys Arg His Thr Gly His Arg Ser Val Gln Glu Gly Pro Phe Ala
 50 55 60
 Asn Val His Ser Ser Leu Cys Leu Phe Ser Tyr Ala Phe Leu Asp Trp
 65 70 75 80
 Ser Lys Arg Phe Phe Phe Pro Ser Lys Glu Gln Phe Met Phe Leu Asn
 85 90 95
 Thr Phe Phe Pro
 100

<210> 5115
 <211> 1003
 <212> DNA
 <213> Homo sapiens

<400> 5115
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 120
 tccaaagcct gcctggggat ttgtgcccga gccagccca ggagggctag agaaagcaaa
 180
 ggtgtctacc agccgcccgc atcccagaag gaaagcctct tcccatgagt gcctgtgggt
 240
 gggcggtgag ctcaacaccc acaaagggca gaaggcctgg gggcagtga gtgatggtga
 300
 gggcatggga agcagatgct gctgaggggt ggtggaggga gaaatggaga ccagcaccc
 360
 agcaggggga gccaggtgac agcaggggaa gcagatggca gggccccagg cagtccagga
 420
 cccagggctc tgaagggtgg ggcaaggggg tcaggtcacg tcttgacatc cagcagtggc
 480
 tccgcttggt ctggtagccc actctgccc gccatgtccc accttgggggt ctcccatgtc
 540
 agagagcagc tcctgctcag catcatgcag ttcctcagct gggcatagc tgtacatggg
 600
 gagcaggtgc atgcgcagcc ggtccaccgc ctttttcttc tgtacataga ttaccacagc
 660
 caccaccacc ccgaccaggg tgatgaggaa gaaggggccc aacacatagc ccaccatgga
 720
 gtcgctgttg gcctgggggg cattgggcac agtgggtgta ctcatgacat cagcagccgg
 780

agggctgggt ggtcagcatg ggcagtggcg cttcgggagg gcgcctccac tgggctcccc
 840
 agtcgtatgc tcacgtcccc aggtcaaggg ggcattgccag ggtggggagg gcgtcaggcc
 900
 gctgctagga tgcggggccag caacagcgga ncaggaggtg gttccacagg cgctgggnag
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 1003

<210> 5116
 <211> 226
 <212> PRT
 <213> Homo sapiens

<400> 5116
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 20 25 30
 Ser Pro Gly Pro Gln Ala Leu Lys Gly Gly Ala Arg Gly Ser Gly His
 35 40 45
 Val Leu Thr Ser Ser Ser Gly Ser Ala Cys Ala Gly Ser Pro Leu Cys
 50 55 60
 Pro Ala Met Ser His Leu Gly Val Ser His Val Arg Glu Gln Leu Leu
 65 70 75 80
 Leu Ser Ile Met Gln Phe Leu Ser Trp Val Ile Ala Val His Gly Glu
 85 90 95
 Gln Val His Ala Gln Pro Val His Pro Leu Phe Leu Leu Tyr Ile His
 100 105 110
 Tyr His Ser His His His Pro Asp Gln Gly Asp Glu Glu Glu Gly Pro
 115 120 125
 Gln His Ile Ala His His Gly Val Ala Val Gly Leu Gly Gly Ile Gly
 130 135 140
 His Ser Gly Val Thr His Asp Ile Ser Ser Arg Arg Ala Gly Trp Ser
 145 150 155 160
 Ala Trp Ala Val Ala Leu Arg Glu Gly Ala Ser Thr Gly Leu Pro Ser
 165 170 175
 Arg Met Leu Ile Val Pro Gly Gln Gly Gly Met Pro Gly Trp Gly Gly
 180 185 190
 Arg Gln Ala Ala Ala Arg Met Arg Ala Ser Asn Ser Gly Xaa Gly Gly
 195 200 205
 Gly Ser His Gly Ala Gly Xaa Ala His Ala Gly Gly Gly Gly Val Gly
 210 215 220
 Gly Cys
 225

<210> 5117
 <211> 1180
 <212> DNA
 <213> Homo sapiens

<400> 5117
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 120
 agtgggaaaa gtgcaacagc gaacaccatc cttggagagg aaatctttga ttctagaatt
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 240
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 300
 aaggaaatca gccgctgcat catctcctcc tgcccagggc cccatgctat tgcctagtt
 360
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 420
 tttgggaagt cagccatgaa gcacatggtc atcttgttca ctgcgaaaga agagttggag
 480
 ggccagagct tccatgactt catagcagat gcggatgtgg gcctaaaaag catcgtcaag
 540
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 600
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 720
 gttttgagga aaatctacac tgaccaatta aatgaagaaa ttaaactagt agaagaggat
 780
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 840
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 900
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 960
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 1020
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<210> 5118

<211> 300

<212> PRT

<213> Homo sapiens

<400> 5118

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 20 25 30
 Ile Phe Asp Ser Arg Ile Ala Ala Gln Ala Val Thr Lys Asn Cys Gln
 35 40 45
 Lys Ala Ser Arg Glu Trp Gln Gly Arg Asp Leu Leu Val Val Asp Thr
 50 55 60
 Pro Gly Leu Phe Asp Thr Lys Glu Ser Leu Asp Thr Thr Cys Lys Glu

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65          70          75          80
Ile Ser Arg Cys Ile Ile Ser Ser Cys Pro Gly Pro His Ala Ile Val
      85          90          95
Leu Val Leu Leu Leu Gly Arg Tyr Thr Glu Glu Glu Gln Lys Thr Val
      100          105          110
Ala Leu Ile Lys Ala Val Phe Gly Lys Ser Ala Met Lys His Met Val
      115          120          125
Ile Leu Phe Thr Arg Lys Glu Glu Leu Glu Gly Gln Ser Phe His Asp
      130          135          140
Phe Ile Ala Asp Ala Asp Val Gly Leu Lys Ser Ile Val Lys Glu Cys
145          150          155          160
Gly Asn Arg Cys Cys Ala Phe Ser Asn Ser Lys Lys Thr Ser Lys Ala
      165          170          175
Glu Lys Glu Ser Gln Val Gln Glu Leu Val Glu Leu Ile Glu Lys Met
      180          185          190
Val Gln Cys Asn Glu Gly Ala Tyr Phe Ser Asp Asp Ile Tyr Lys Asp
      195          200          205
Thr Glu Glu Arg Leu Lys Gln Arg Glu Glu Val Leu Arg Lys Ile Tyr
      210          215          220
Thr Asp Gln Leu Asn Glu Ile Lys Leu Val Glu Glu Asp Lys His
225          230          235          240
Lys Ser Glu Glu Glu Lys Glu Lys Glu Ile Lys Leu Leu Lys Leu Lys
      245          250          255
Tyr Asp Glu Lys Ile Lys Asn Ile Arg Glu Glu Ala Glu Arg Asn Ile
      260          265          270
Phe Lys Asp Val Phe Asn Arg Ile Trp Lys Met Leu Ser Glu Ile Trp
      275          280          285
His Arg Phe Leu Ser Lys Cys Lys Phe Tyr Ser Ser
      290          295          300

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<210> 5119

<211> 1450

<212> DNA

<213> Homo sapiens

<400> 5119

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cttctgtct gtactggaac catcacaggc ttttgaggaa ctacttttga accgttcccc
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240
atccttctgg gcttctctaa caagccacat ttggagaaga tactttttng gatcattttt
300
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360
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420
ttgaccagca gctgtgttcc acagatgttg attaacttct ggggcccgaga aaagaccatc
480
agctacattg gctgtgccat tcaactctat gtttttttgt ggcttggggc cacggaatat
540

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gtccctcttg ttgtcatggc tgtggattgt tatgtagcag tgtgtcatcc actgcaaaat
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 accatgatca tgcacccaaa actttgtctg cagctggcta tcttggcatg ggggactggc
 660
 ttggccagc ctctgatcca gtccctgcc accctccggt tacccttctg ctcccagcgg
 720
 atgggtgatg atgttggttg tgaagtccca gctctgattc agctctccag tactgatact
 780
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 840
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 900
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 960
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 1020
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 1080
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 1140
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 1200
 catcacaaaa agctggagat acacctcta agccaaaagt aggagagaaa gagctgcatt
 1260
 ctgttcaggt tgagatttca gtttcttca tcaatcaatt gggcccttaa attcttcata
 1320
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 aaataaaata
 1450

<210> 5120

<211> 314

<212> PRT

<213> Homo sapiens

<400> 5120

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Phe	Ser	Asn	Lys	Pro	His	Leu	Glu	Lys	Ile	Leu	Phe	Xaa	Ile	Ile	Phe
			20					25					30		
Ile	Phe	Tyr	Phe	Leu	Thr	Leu	Ala	Gly	Asn	Met	Val	Ile	Val	Leu	Val
		35					40					45			
Ser	Leu	Lys	Asp	Pro	Lys	Leu	His	Ile	Pro	Met	Tyr	Phe	Phe	Leu	Ser
	50					55					60				
Asn	Leu	Ser	Leu	Val	Asp	Leu	Cys	Leu	Thr	Ser	Ser	Cys	Val	Pro	Gln
65					70					75				80	
Met	Leu	Ile	Asn	Phe	Trp	Gly	Pro	Glu	Lys	Thr	Ile	Ser	Tyr	Ile	Gly
			85						90					95	
Cys	Ala	Ile	Gln	Leu	Tyr	Val	Phe	Leu	Trp	Leu	Gly	Ala	Thr	Glu	Tyr
			100						105				110		
Val	Leu	Leu	Val	Val	Met	Ala	Val	Asp	Cys	Tyr	Val	Ala	Val	Cys	His

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      115      120      125
Pro Leu Gln Asn Thr Met Ile Met His Pro Lys Leu Cys Leu Gln Leu
  130      135      140
Ala Ile Leu Ala Trp Gly Thr Gly Leu Ala Gln Ser Leu Ile Gln Ser
  145      150      155      160
Pro Ala Thr Leu Arg Leu Pro Phe Cys Ser Gln Arg Met Val Asp Asp
      165      170      175
Val Val Cys Glu Val Pro Ala Leu Ile Gln Leu Ser Ser Thr Asp Thr
      180      185      190
Thr Tyr Ser Glu Ile Gln Met Ser Ile Ala Ser Val Val Leu Leu Val
      195      200      205
Met Pro Leu Ile Ile Ile Leu Ser Ser Ser Gly Ala Ile Ala Lys Ala
      210      215      220
Val Leu Arg Ile Lys Ser Thr Ala Gly Gln Lys Lys Ala Phe Gly Thr
  225      230      235      240
Cys Ile Ser His Leu Leu Val Val Ser Leu Phe Tyr Gly Thr Val Thr
      245      250      255
Gly Val Tyr Leu Gln Pro Lys Asn His Tyr Pro His Glu Trp Gly Lys
      260      265      270
Phe Leu Thr Leu Phe Tyr Thr Val Thr Pro Thr Leu Asn Pro Leu
      275      280      285
Ile Tyr Thr Leu Arg Asn Lys Glu Val Lys Gly Ala Leu Ile Arg Leu
      290      295      300
Gly Arg Arg Thr Trp Asp Ser Gln Asn Asn
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<210> 5121

<211> 944

<212> DNA

<213> Homo sapiens

<400> 5121

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  120
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  180
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  240
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  300
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  420
caggcaaagt ttgacgagtg tgtgctggac aaactgggct ggggtcggcc tgacctggga
  480
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  540
tcaagaccaa gaccgatcc cagccctgag atcgaggag atctgcagcc tgccacacat
  600
ggcagccgct tttatttctg gaccaagtaa agatgggtcc gtggcccaca ctcggtcatg
  660

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 720
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 780
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<210> 5122

<211> 172

<212> PRT

<213> Homo sapiens

<400> 5122

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Glu	Val	Lys	Ile	Ser	Ser	Ala	Val	Leu	Lys	Ala	Ala	Ala	His	His	Tyr
			20					25					30		
Gly	Ala	Gln	Cys	Asp	Lys	Pro	Asn	Lys	Glu	Phe	Met	Leu	Cys	Arg	Trp
		35					40					45			
Glu	Glu	Lys	Asp	Pro	Arg	Arg	Cys	Leu	Glu	Glu	Gly	Lys	Leu	Val	Asn
	50					55					60				
Lys	Cys	Ala	Leu	Asp	Phe	Phe	Arg	Gln	Ile	Lys	Arg	His	Cys	Ala	Glu
65					70					75				80	
Pro	Phe	Thr	Glu	Tyr	Trp	Thr	Cys	Ile	Asp	Tyr	Thr	Gly	Gln	Gln	Leu
			85					90					95		
Phe	Arg	His	Cys	Arg	Lys	Gln	Gln	Ala	Lys	Phe	Asp	Glu	Cys	Val	Leu
			100					105					110		
Asp	Lys	Leu	Gly	Trp	Val	Arg	Pro	Asp	Leu	Gly	Glu	Leu	Ser	Lys	Val
		115					120					125			
Thr	Lys	Val	Lys	Thr	Asp	Arg	Pro	Leu	Pro	Glu	Asn	Pro	Tyr	His	Ser
		130				135					140				
Arg	Pro	Arg	Pro	Asp	Pro	Ser	Pro	Glu	Ile	Glu	Gly	Asp	Leu	Gln	Pro
145					150					155				160	
Ala	Thr	His	Gly	Ser	Arg	Phe	Tyr	Phe	Trp	Thr	Lys				
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<210> 5123

<211> 1139

<212> DNA

<213> Homo sapiens

<400> 5123

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 180
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 240

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 360
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 720
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 1139

<210> 5124

<211> 101

<212> PRT

<213> Homo sapiens

<400> 5124

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Thr	Pro	Lys	Pro	His	Leu	Ala	Ala	His	Ser	Cys	Ser	Leu	Leu	Gln	Lys
			20					25					30		
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<211> 6244

<212> DNA

<213> Homo sapiens

<400> 5125

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<211> 117
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Ile Leu Cys Met Gln Pro Thr Gly Lys Arg Pro Pro Gly Ser Gln
 50 55 60
 Asp Phe Ser Phe Ser Cys Leu Cys Pro Ala Thr Cys Ser Leu Pro Leu
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 Phe Arg Cys Gln Arg Gly Asp Phe Arg Ala Val Cys Phe Asn Pro Gly
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 Asp Val Leu Val Val
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 <211> 55
 <212> PRT
 <213> Homo sapiens

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 Trp Gly Trp Thr Phe Thr Gly Thr Met Ser Ala Gly Ser Ala Ala Pro

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Ala Ser Ser Thr Thr Ile Ser
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<210> 5129

<211> 745

<212> DNA

<213> Homo sapiens

<400> 5129

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<211> 111

<212> PRT

<213> Homo sapiens

<400> 5130

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Ser Arg Gln Leu His Phe Arg Leu Leu Glu Glu Arg Gln Gly Val Gly
35 40 45
Gly Val Gly Leu Ser Ala Lys Gly Gly Lys His Pro Gln Asp Arg Asn
50 55 60
Leu Ala Ala Val Gly Pro Glu Val Gln Ala Cys Gly Trp Ala Arg Pro
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 <212> PRT
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<400> 5132
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 Tyr Gly Pro Glu Ala Ile Ala Gln Tyr Gln Gly Arg Glu Leu Tyr Glu
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 Arg Pro Pro His Leu Tyr Ala Val Ala Asn Ala Ala Tyr Lys Ala Met
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 Lys His Arg Ser Arg Asp Thr Cys Ile Val Ile Ser Gly Glu Ser Gly

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<210> 5134

<211> 157
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<400> 5134
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 35 40 45
 Ser Arg Gly Ser Pro Tyr Arg Glu Ser Pro Leu Gly His Phe Glu Ser
 50 55 60
 Tyr Gly Gly Met Pro Phe Phe Gln Ala Gln Lys Met Phe Val Asp Val
 65 70 75 80
 Pro Glu Asn Thr Val Ile Leu Asp Glu Met Thr Leu Arg His Met Val
 85 90 95
 Gln Asp Cys Thr Ala Val Lys Thr Gln Leu Leu Lys Leu Lys Arg Leu
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 Leu His Gln His Asp Gly Ser Gly Ser Leu His Asp Ile Gln Leu Ser
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<210> 5135
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<211> 341

<212> PRT

<213> Homo sapiens

<400> 5136

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<212> DNA
<213> Homo sapiens
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<210> 5138

<211> 371

<212> PRT

<213> Homo sapiens

<400> 5138

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			20				25					30			
Ala	Pro	Leu	Asp	Trp	Ala	Leu	Pro	Leu	Ser	Glu	Val	Pro	Ser	Asp	Trp
		35				40					45				
Glu	Val	Asp	Asp	Leu	Leu	Cys	Ser	Leu	Leu	Ser	Pro	Pro	Ala	Ser	Leu
	50				55					60					
Asn	Ile	Leu	Ser	Ser	Ser	Asn	Pro	Cys	Leu	Val	His	His	Asp	His	Thr
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Tyr	Ser	Leu	Pro	Arg	Glu	Thr	Val	Ser	Met	Asp	Leu	Glu	Ser	Glu	Ser

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Cys Arg Lys Glu Gly Thr Gln Met Thr Pro Gln His Met Glu Glu Leu
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Ala Glu Gln Glu Ile Ala Arg Leu Val Leu Thr Asp Glu Glu Lys Ser
      115              120              125
Leu Leu Glu Lys Glu Gly Leu Ile Leu Pro Glu Thr Leu Pro Leu Thr
      130              135              140
Lys Thr Glu Glu Gln Ile Leu Lys Arg Val Arg Arg Lys Ile Arg Asn
      145              150              155              160
Lys Arg Ser Ala Gln Glu Ser Arg Arg Lys Lys Lys Val Tyr Val Gly
      165              170              175
Gly Leu Glu Ser Arg Val Leu Lys Tyr Thr Ala Gln Asn Met Glu Leu
      180              185              190
Gln Asn Lys Val Gln Leu Leu Glu Glu Gln Asn Leu Ser Leu Leu Asp
      195              200              205
Gln Leu Arg Lys Leu Gln Ala Met Val Ile Glu Ile Ser Asn Lys Thr
      210              215              220
Ser Ser Ser Ser Thr Cys Ile Leu Val Leu Leu Val Ser Phe Cys Leu
      225              230              235              240
Leu Leu Val Pro Ala Met Tyr Ser Ser Asp Thr Arg Gly Ser Leu Pro
      245              250              255
Ala Glu His Gly Val Leu Ser Arg Gln Leu Arg Ala Leu Pro Ser Glu
      260              265              270
Asp Pro Tyr Gln Leu Glu Leu Pro Ala Leu Gln Ser Glu Val Pro Lys
      275              280              285
Asp Ser Thr His Gln Trp Leu Asp Gly Ser Asp Cys Val Leu Gln Ala
      290              295              300
Pro Gly Asn Thr Ser Cys Leu Leu His Tyr Met Pro Gln Ala Pro Ser
      305              310              315              320
Ala Glu Pro Pro Leu Glu Trp Pro Phe Pro Asp Leu Phe Ser Glu Pro
      325              330              335
Leu Cys Arg Gly Pro Ile Leu Pro Leu Gln Ala Asn Leu Thr Arg Lys
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Gly Gly Trp Leu Pro Thr Gly Ser Pro Ser Val Ile Leu Gln Asp Arg
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Tyr Ser Gly
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<210> 5139

<211> 1968

<212> DNA

<213> Homo sapiens

<400> 5139

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1968

<210> 5140

<211> 443

<212> PRT

<213> Homo sapiens

<400> 5140

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Asn His Thr Gly Glu Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val
 35           40           45
Val Ile Phe Gln Arg Glu Gln Glu Ser Lys Asn Gln Val His Arg Arg
 50           55           60
Gly Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
 65           70           75           80
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile Arg
 85           90           95
Trp Leu Pro Gln Gln Asn Ala Ala Tyr Phe Leu Leu Ser Thr Asn Asp
100           105           110
Lys Thr Val Lys Leu Trp Lys Val Ser Glu Arg Asp Lys Arg Pro Glu
115           120           125
Gly Tyr Asn Leu Lys Asp Glu Glu Gly Arg Leu Arg Asp Pro Ala Thr
130           135           140
Ile Thr Thr Leu Arg Val Pro Val Leu Arg Pro Met Asp Leu Met Val
145           150           155           160
Glu Ala Thr Pro Arg Arg Val Phe Ala Asn Ala His Thr Tyr His Ile
165           170           175
Asn Ser Ile Ser Val Asn Ser Asp Tyr Glu Thr Tyr Met Ser Ala Asp
180           185           190
Asp Leu Arg Ile Asn Leu Trp Asn Phe Glu Ile Thr Asn Gln Ser Phe
195           200           205
Asn Ile Val Asp Ile Lys Pro Ala Asn Met Glu Glu Leu Thr Glu Val
210           215           220
Ile Thr Ala Ala Glu Phe His Pro His His Cys Asn Thr Phe Val Tyr
225           230           235           240
Ser Ser Ser Lys Gly Thr Ile Arg Leu Cys Asp Met Arg Ala Ser Ala
245           250           255
Leu Cys Asp Arg His Thr Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser
260           265           270
Asn Arg Ser Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys
275           280           285
Phe Ser His Ser Gly Arg Tyr Ile Met Thr Arg Asp Tyr Leu Thr Val
290           295           300
Lys Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
305           310           315           320
Val His Asp Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn Asp
325           330           335
Cys Ile Phe Asp Lys Phe Glu Cys Val Trp Asn Gly Ser Asp Ser Val
340           345           350
Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe Asp Arg Asp

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355	360	365
Thr Lys Arg Asp Val Thr	Leu Glu Ala Ser Arg	Glu Asn Ser Lys Pro
370	375	380
Arg Ala Ile Leu Lys Pro	Arg Lys Val Cys Val	Gly Gly Lys Arg Arg
385	390	395
Lys Asp Glu Ile Ser Val	Asp Ser Leu Asp Phe	Ser Lys Lys Ile Leu
405	410	415
His Thr Ala Trp His Pro	Val Asp Asn Val Ile	Ala Val Ala Ala Thr
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Asn Asn Leu Tyr Ile Phe	Gln Asp Lys Ile Asn	
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<210> 5141
 <211> 928
 <212> DNA
 <213> Homo sapiens

<400> 5141
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<210> 5142
 <211> 227
 <212> PRT

<213> Homo sapiens

<400> 5142

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      20             25             30
Pro Leu Val Val Asn Val Leu Glu Asn Leu Asp Ser Val Leu Ser Glu
      35             40             45
Asn Gln Glu His Glu Val Glu Leu Glu Leu Leu Arg Glu Asp Asn Glu
      50             55             60
Gln Leu Leu Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Arg Gln Ala
      65             70             75             80
Glu Glu Lys Phe Ile Glu Phe Glu Asp Ala Leu Glu Gln Glu Lys Lys
      85             90             95
Glu Leu Gln Ile Gln Val Glu His Tyr Glu Phe Gln Thr Arg Gln Leu
      100            105            110
Glu Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Arg Leu Glu Glu
      115            120            125
Arg Glu Ser Glu Met Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His
      130            135            140
Thr Glu Met Ile Gln Thr Tyr Val Glu His Ile Glu Arg Ser Lys Met
      145            150            155            160
Gln Gln Val Gly Gly Asn Ser Gln Thr Glu Ser Ser Leu Pro Gly Arg
      165            170            175
Ser Arg Lys Glu Arg Pro Thr Ser Leu Asn Val Phe Pro Leu Ala Asp
      180            185            190
Gly Thr Val Arg Ala Gln Ile Gly Gly Lys Leu Val Pro Ala Gly Asp
      195            200            205
His Trp His Leu Ser Asp Leu Gly Gln Leu Gln Ser Ser Ser Ser Tyr
      210            215            220
Gln Val Leu
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<210> 5143

<211> 1666

<212> DNA

<213> Homo sapiens

<400> 5143

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420

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<210> 5144

<211> 218

<212> PRT

<213> Homo sapiens

<400> 5144

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1															
Phe	Glu	Ser	Ala	Val	Gln	Glu	Asn	Ile	Ser	Ile	Asn	Gly	Gln	Ala	Trp
				20				25					30		
Gln	Glu	Ala	Ser	Asp	Asn	Cys	Phe	Met	Asp	Ser	Asp	Ile	Lys	Val	Leu

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  50          55          60
Gln Tyr Pro Arg Lys Ile Leu Glu Cys Val Ile Lys Thr Ile Lys Ala
  65          70          75          80
Lys Gln Glu Ile Leu Lys Gln Tyr His Pro Val Val His Pro Leu Asp
      85          90          95
Leu Lys Tyr Asp Pro Asp Pro Ala Pro His Met Glu Asn Leu Lys Cys
      100          105          110
Arg Gly Glu Thr Val Ala Lys Glu Ile Ser Glu Ala Met Lys Ser Leu
      115          120          125
Pro Ala Leu Ile Glu Gln Gly Glu Gly Phe Ser Gln Val Leu Arg Met
      130          135          140
Gln Pro Val Ile His Leu Gln Arg Ile His Gln Glu Val Phe Ser Ser
      145          150          155          160
Cys His Arg Lys Pro Asp Ala Lys Pro Glu Asn Phe Ile Thr Gln Ile
      165          170          175
Glu Thr Thr Pro Thr Glu Thr Ala Ser Arg Lys Thr Ser Asp Met Val
      180          185          190
Leu Lys Arg Lys Gln Thr Lys Asp Cys Pro Gln Arg Lys Trp Tyr Pro
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<210> 5145

<211> 1885

<212> DNA

<213> Homo sapiens

<400> 5145

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  660
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<210> 5146

<211> 312

<212> PRT

<213> Homo sapiens

<400> 5146

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			20					25					30		
Arg	Leu	Gly	Val	Cys	Thr	Gly	Leu	Ala	Cys	Ala	Tyr	His	Leu	Leu	Cys
		35					40					45			
Thr	Pro	Pro	Thr	Pro	Cys	Ile	Pro	Thr	Pro	Gly	Leu	Val	Ala	Pro	Ala

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 Leu Gly Lys Val Ser Pro Cys Ala Cys Thr Arg Arg Gln Thr Glu Lys
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 85 90 95
 Ser Phe Leu Leu Ile Ala Pro Val Cys Gly Ala Tyr Thr Pro Thr
 100 105 110
 Ser Cys Asn Lys Ile Val Ala Ser Ala Lys Lys Pro Gly Ile Arg Thr
 115 120 125
 Gly Ile Gln Gly Leu Lys Gly Asp Gln Gly Glu Pro Gly Pro Ser Gly
 130 135 140
 Asn Pro Gly Lys Val Gly Tyr Pro Gly Pro Ser Gly Pro Leu Gly Ala
 145 150 155 160
 Arg Gly Ile Pro Gly Ile Lys Gly Thr Lys Gly Ser Pro Gly Asn Ile
 165 170 175
 Lys Asp Gln Pro Arg Pro Ala Phe Ser Ala Ile Arg Arg Asn Pro Pro
 180 185 190
 Met Gly Gly Asn Val Val Ile Phe Asp Thr Val Ile Thr Asn Gln Glu
 195 200 205
 Glu Pro Tyr Gln Asn His Ser Gly Arg Phe Val Cys Thr Val Pro Gly
 210 215 220
 Tyr Tyr Tyr Phe Thr Phe Gln Val Leu Ser Gln Trp Glu Ile Cys Leu
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 Ser Ile Val Ser Ser Ser Arg Gly Gln Val Arg Arg Ser Leu Gly Phe
 245 250 255
 Cys Asp Thr Thr Asn Lys Gly Leu Phe Gln Val Val Ser Gly Gly Met
 260 265 270
 Val Leu Gln Leu Gln Gln Gly Asp Gln Val Trp Val Glu Lys Asp Pro
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<210> 5147

<211> 2943

<212> DNA

<213> Homo sapiens

<400> 5147

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 2943

<210> 5148

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5148

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		20						25					30		
Ile	Asp	Ile	Asp	Thr	Leu	Cys	Ala	Val	Leu	Glu	Arg	Asp	Thr	Leu	Ser
		35					40					45			
Ile	Arg	Glu	Ser	Arg	Leu	Phe	Gly	Ala	Val	Val	Arg	Trp	Ala	Glu	Ala
	50					55				60					
Glu	Cys	Gln	Arg	Gln	Gln	Leu	Pro	Val	Thr	Phe	Gly	Asn	Lys	Gln	Lys
65				70					75					80	
Val	Leu	Gly	Lys	Ala	Leu	Ser	Leu	Ile	Arg	Phe	Pro	Leu	Met	Thr	Ile
			85					90						95	
Glu	Glu	Phe	Ala	Ala	Gly	Pro	Ala	Gln	Ser	Gly	Ile	Leu	Ser	Asp	Arg
			100					105						110	
Glu	Val	Val	Asn	Leu	Phe	Leu	His	Phe	Thr	Val	Asn	Pro	Lys	Pro	Arg

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Val Glu Tyr Ile Asp Arg Pro Arg Cys Cys Leu Arg Gly Lys Glu Cys
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Cys Ile Asn Arg Phe Gln Gln Val Glu Ser Arg Trp Gly Tyr Ser Gly
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Thr Ser Asp Arg Ile Arg Phe Thr Val Asn Arg Arg Ile Ser Ile Val
      165      170      175
Gly Phe Gly Leu Tyr Gly Ser Ile His Gly Pro Thr Asp Tyr Gln Val
      180      185      190
Asn Ile Gln Ile Ile Glu Tyr Glu Lys Lys Gln Thr Leu Gly Gln Asn
      195      200      205
Asp Thr Gly Phe Ser Cys Asp Gly Thr Ala Asn Thr Phe Arg Val Met
      210      215      220
Phe Lys Glu Pro Ile Glu Ile Leu Pro Asn Val Cys Tyr Thr Ala Cys
225      230      235      240
Ala Thr Leu Lys Gly Pro Asp Ser His Tyr Gly Thr Lys Gly Leu Lys
      245      250      255
Lys Val Val His Glu Thr Pro Ala Ala Ser Lys Thr Val Phe Phe Phe
      260      265      270
Phe Ser Ser Pro Gly Asn Asn Asn Gly Thr Ser Ile Glu Asp Gly Gln
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Ile Pro Glu Ile Ile Phe Tyr Thr
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<210> 5149
 <211> 533
 <212> DNA
 <213> Homo sapiens

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<400> 5149
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420
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<210> 5150
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 5150

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 Ile Val Gly Asp Ile Ala Pro Ala Asp Asn Ile Pro Lys Glu Glu Lys
 35 40 45
 His Arg Arg Glu Glu Glu Ala Met Lys Gln Ile Thr Gln Leu Leu Pro
 50 55 60
 Glu Asp Leu Arg Lys Glu Leu Tyr Glu Leu Trp Glu Glu Tyr Glu Thr
 65 70 75 80
 Gln Ser Ser Ala Glu Ala Lys Phe Val Lys Gln Leu Asp Gln Cys Glu
 85 90 95
 Met Ile Leu Gln Ala Ser Glu Tyr Glu Asp Leu Glu His Lys Pro Gly
 100 105 110
 Arg Leu Gln Asp Phe Tyr Asp Ser Thr Ala Gly Lys Phe Asn His Pro
 115 120 125
 Glu Ile Val Gln Leu Val Ser Glu Leu Glu Ala Glu Arg Ser Thr Asn
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 Ile Ala Ala Ala Ser Glu Pro His Ser
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<210> 5151

<211> 2273

<212> DNA

<213> Homo sapiens

<400> 5151

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<210> 5152

<211> 324

<212> PRT

<213> Homo sapiens

<400> 5152

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Lys Pro Thr Phe Thr Lys Gln Gln Ile Ala Asn Leu Asp Lys Gln Ala
          35          40          45
Lys Leu Ser Arg Ala Tyr Asp Gly Thr Thr Tyr Leu Pro Gly Ile Val
          50          55          60
Gly Leu Asn Asn Ile Lys Ala Asn Asp Tyr Ala Asn Ala Val Leu Gln
65          70          75          80
Ala Leu Ser Asn Val Pro Pro Leu Arg Asn Tyr Phe Leu Glu Glu Asp
          85          90          95
Asn Tyr Lys Asn Ile Lys Arg Pro Pro Gly Asp Ile Met Phe Leu Leu
          100          105          110
Val Gln Arg Phe Gly Glu Leu Met Arg Lys Leu Trp Asn Pro Arg Asn
          115          120          125
Phe Lys Ala His Val Ser Pro His Glu Met Leu Gln Ala Val Val Leu
          130          135          140
Cys Ser Lys Lys Thr Phe Gln Ile Thr Lys Gln Gly Asp Gly Val Asp
145          150          155          160
Phe Leu Ser Trp Phe Leu Asn Ala Leu His Ser Ala Leu Gly Gly Thr
          165          170          175
Lys Lys Lys Lys Lys Thr Ile Val Thr Asp Val Phe Gln Gly Ser Met
          180          185          190
Arg Ile Phe Thr Lys Lys Leu Pro His Pro Asp Leu Pro Ala Glu Glu
          195          200          205
Lys Glu Gln Leu Leu His Asn Asp Glu Tyr Gln Glu Thr Met Val Glu
          210          215          220
Ser Thr Phe Met Tyr Leu Thr Leu Asp Leu Pro Thr Ala Pro Leu Tyr
225          230          235          240
Lys Asp Glu Lys Glu Gln Leu Ile Ile Pro Gln Val Pro Leu Phe Asn
          245          250          255
Ile Leu Ala Lys Phe Asn Gly Ile Thr Glu Lys Glu Tyr Lys Thr Tyr
          260          265          270
Lys Glu Asn Phe Leu Lys Arg Phe Gln Leu Thr Lys Leu Pro Pro Tyr
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<210> 5153

<211> 640

<212> DNA

<213> Homo sapiens

<400> 5153

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<210> 5154

<211> 162

<212> PRT

<213> Homo sapiens

<400> 5154

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		20					25				30			
Ala	Cys	His	Arg	Trp	Leu	Gln	Glu	Gly	Ser	Thr	Leu	Gly	Gly	Thr
		35				40					45			
Glu	Leu	Ala	Phe	Gly	Ala	Asp	Thr	Leu	Leu	Thr	Leu	Pro	Phe	Leu
	50					55				60				
Gln	Gly	Val	Pro	Phe	Pro	Gln	Asn	Glu	Ala	Asn	Ala	Met	Asp	Val
65					70				75					80
Val	Gln	Phe	Ala	Ile	His	Arg	Leu	Gly	Phe	Gln	Pro	Gln	Asp	Ile
				85					90				95	
Ile	Tyr	Ala	Trp	Ser	Ile	Gly	Gly	Phe	Thr	Ala	Thr	Trp	Ala	Ala
		100						105				110		Met
Ser	Tyr	Pro	Asp	Val	Ser	Ala	Met	Ile	Leu	Asp	Ala	Ser	Phe	Asp
		115					120					125		Asp
Leu	Val	Pro	Leu	Ala	Leu	Lys	Val	Met	Pro	Asp	Ser	Trp	Ser	Glu
	130					135					140			Cys
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<210> 5155

<211> 1402

<212> DNA

<213> Homo sapiens

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<210> 5156

<211> 118

<212> PRT

<213> Homo sapiens

<400> 5156

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Asp Phe Val Lys Thr Leu Leu Arg Ile Cys Asn Ala Ile Pro Ser Phe
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<212> DNA

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<400> 5157

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<212> PRT

<213> Homo sapiens

<400> 5158

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<210> 5159

<211> 3233

<212> DNA

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<400> 5159

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<212> PRT

<213> Homo sapiens

<400> 5160

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4341

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<210> 5161

<211> 1645

<212> DNA

<213> Homo sapiens

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 35 40 45
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 Val Val Val Arg Asp Arg Pro Phe Gln Arg Thr Val Thr Met His Lys
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 Asp Ser Met Gly His Val Gly Phe Val Ile Lys Lys Gly Lys Ile Val
 115 120 125
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 Lys Lys Ile Met Glu Ile Leu Ala Thr Ala Gly Asn Val Val Thr Leu
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<211> 213

<212> PRT

<213> Homo sapiens

<400> 5164

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<210> 5165

<211> 2370

<212> DNA

<213> Homo sapiens

<400> 5165

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960
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1080

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<210> 5166

<211> 521

<212> PRT

<213> Homo sapiens

<400> 5166

Met Asp Pro Ala Gly Ala Ala Asp Pro Ser Val Pro Pro Asn Pro Leu
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20 25 30
 Ala Asp Arg Arg Ser Leu Pro Gly Thr Trp Thr Arg Ser Ser Pro Glu
 35 40 45
 His Thr Thr Ile Leu Arg Gly Gly Val Arg Arg Cys Leu Gln Gln Gln
 50 55 60
 Cys Glu Gln Thr Val Arg Ile Leu His Ala Lys Val Ala Gln Lys Ser
 65 70 75 80
 Tyr Gly Asn Glu Lys Arg Phe Phe Cys Pro Pro Pro Cys Val Tyr Leu
 85 90 95
 Ser Gly Pro Gly Trp Arg Val Lys Pro Gly Gln Asp Gln Ala His Gln
 100 105 110
 Ala Gly Glu Thr Gly Pro Thr Val Cys Gly Tyr Met Gly Leu Asp Ser
 115 120 125
 Ala Ser Gly Ser Ala Thr Glu Thr Gln Lys Leu Asn Phe Glu Gln Gln
 130 135 140
 Pro Asp Ser Arg Glu Phe Gly Cys Ala Lys Thr Leu Tyr Ile Ser Asp
 145 150 155 160
 Ala Asp Lys Arg Lys His Phe Arg Leu Val Leu Arg Leu Val Leu Arg
 165 170 175
 Gly Gly Arg Glu Leu Gly Thr Phe His Ser Arg Leu Ile Lys Val Ile
 180 185 190
 Ser Lys Pro Ser Gln Lys Lys Gln Ser Leu Lys Asn Thr Asp Leu Cys
 195 200 205
 Ile Ser Ser Gly Ser Lys Val Ser Leu Phe Asn Arg Leu Arg Ser Gln
 210 215 220
 Thr Val Ser Thr Arg Tyr Leu Ser Val Glu Asp Gly Ala Phe Val Ala
 225 230 235 240
 Ser Ala Arg Gln Trp Ala Ala Phe Thr Leu His Leu Ala Asp Gly His
 245 250 255
 Ser Ala Gln Gly Asp Phe Pro Pro Arg Glu Gly Tyr Val Arg Tyr Gly
 260 265 270
 Ser Leu Val Gln Leu Val Cys Thr Val Thr Gly Ile Thr Leu Pro Pro
 275 280 285
 Met Ile Ile Arg Lys Val Ala Lys Gln Cys Ala Leu Leu Asp Val Asp
 290 295 300
 Glu Pro Ile Ser Gln Leu His Lys Cys Ala Phe Gln Phe Pro Gly Ser
 305 310 315 320
 Pro Pro Gly Gly Gly Gly Thr Tyr Leu Cys Leu Ala Thr Glu Lys Val
 325 330 335
 Val Gln Phe Gln Ala Ser Pro Cys Pro Lys Glu Ala Asn Arg Ala Leu
 340 345 350
 Leu Asn Asp Ser Ser Cys Trp Thr Ile Ile Gly Thr Glu Ser Val Glu
 355 360 365
 Phe Ser Phe Ser Thr Ser Leu Ala Cys Thr Leu Glu Pro Val Thr Pro
 370 375 380
 Val Pro Leu Ile Ser Thr Leu Glu Leu Ser Gly Gly Gly Asp Val Ala
 385 390 395 400
 Thr Leu Glu Leu His Gly Glu Asn Phe His Ala Gly Leu Lys Val Trp
 405 410 415
 Phe Gly Asp Val Glu Ala Glu Thr Met Tyr Arg Tyr Gly Val Xaa Ser
 420 425 430
 Pro Arg Ser Leu Val Cys Val Val Pro Asp Val Ala Ala Phe Cys Ser
 435 440 445
 Asp Trp Arg Trp Leu Arg Ala Pro Ile Thr Ile Pro Met Ser Leu Val

450		455		460											
Arg	Ala	Asp	Gly	Leu	Phe	Tyr	Pro	Ser	Ala	Phe	Ser	Phe	Thr	Tyr	Thr
465				470						475				480	
Pro	Glu	Tyr	Ser	Val	Arg	Pro	Gly	His	Pro	Gly	Val	Pro	Glu	Pro	Ala
			485						490					495	
Thr	Asp	Ala	Asp	Ala	Leu	Leu	Glu	Ser	Ile	His	Gln	Glu	Phe	Thr	Arg
		500					505						510		
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	515					520									

<210> 5167
 <211> 878
 <212> DNA
 <213> Homo sapiens

<400> 5167
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 120
 ttggactgtg tgctgcagac acaatatccc aggtctatga gaatgtcaat acagacttca
 180
 cgtgggaaat ggtgaggcaa taaggatcgt ttccttcatg gaaatggagc ttgcagaaga
 240
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 300
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 420
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 480
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 600
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 720
 tccctttttg ggaaaatgtc catgcgccaa cctgcaaacc agcctcattc ccggcatccc
 780
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 840
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 878

<210> 5168
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 5168
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Ser Arg Ala Asp Cys Leu Gly Ala Pro Asn Ile Arg Thr Ala Pro Leu
      35           40           45
Gly Arg Ser Glu Lys Arg Thr Ala Ile Cys Phe Ser Thr Gly Ala Gln
      50           55           60
Asp Ser Ser Gln Arg Ala Pro Phe Arg Leu Gln Asn Pro Gly Gln Leu
      65           70           75           80
Leu Gln Thr Ser Val Arg Asn Leu Val Pro Ser Ile Leu His Thr Ser
      85           90           95
Tyr His Ala Ile Phe Asn Pro Arg Thr Trp Val Leu Leu Cys Pro Cys
      100          105          110
Asp Ile Trp Gly Thr Gln Gly Pro Glu Lys Gly Arg Lys Ile Thr His
      115          120          125
Ala Gly Thr Leu Ser Pro Gln Val Lys Leu Arg Thr Gly Asn Gly Lys
      130          135          140
Gln Gly Gly Ser Thr Glu Ala Gly Asn Ser Gly Val Ile Ala Trp Leu
      145          150          155          160
Ser Leu Glu Cys Thr Pro Ser Thr Ser Thr Gln Ser Ser Pro Gln Leu
      165          170          175
Thr Leu Pro Ser Ser Ala Ser Ser Ile Ser Ser Arg Glu Thr Ile Leu
      180          185          190
Ile Ala Ser Pro Phe Pro Thr
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<210> 5169

<211> 609

<212> DNA

<213> Homo sapiens

<400> 5169

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240
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360
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420
gcagagaagg acgagttcga catcccgac ctcaccgaca acagccggcg ccagctgttc
480
ctcaccaaga gcaagcgccg cttctttttc cgcgtgtcgg aggagcagca gaagcagcag
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609

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<210> 5170
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 5170
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 20 25 30
 Gly Leu Gly Glu Ala Leu Gly Ala Val Glu Leu Ser Leu Ser Glu Phe
 35 40 45
 Leu Leu Leu Phe Thr Thr Ala Gly Ile Tyr Val Asp Gly Ala Gly Arg
 50 55 60
 Lys Ser Arg Gly His Glu Leu Leu Trp Pro Ala Ala Pro Met Gly Trp
 65 70 75 80
 Gly Tyr Ala Ala Pro Tyr Leu Thr Val Phe Ser Glu Asn Ser Ile Asp
 85 90 95
 Val Phe Asp Val Arg Arg Ala Glu Trp Val Gln Thr Val Pro Leu Lys
 100 105 110
 Lys Val Arg Pro Leu Asn Pro Glu Gly Ser Leu Phe Leu Tyr Gly Thr
 115 120 125
 Glu Lys Val Arg Leu Thr Tyr Leu Arg Asn Gln Leu Ala Glu Lys Asp
 130 135 140
 Glu Phe Asp Ile Pro Asp Leu Thr Asp Asn Ser Arg Arg Gln Leu Phe
 145 150 155 160
 Leu Thr Lys Ser Lys Arg Arg Phe Phe Phe Arg Val Ser Glu Glu Gln
 165 170 175
 Gln Lys Gln Gln Arg Arg Glu Met Leu Lys Asp Pro Phe Val Arg Ser
 180 185 190
 Lys Leu Ile Ser Pro Pro Thr Asn Phe Asn His
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<210> 5171
 <211> 2060
 <212> DNA
 <213> Homo sapiens

<400> 5171
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 240
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 420

acagcgagga tggaaatgga aaggaaccga actaaaatgc atttcccttt gcagggcaga
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600
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660
caggtctgag gctcactgct ctgagtcctg aacaccagag ccctgcagag agtggtgata
720
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780
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840
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960
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1080
gaatactcaa gtgctagctt agcagctttg ttcagtccag atcagagctg ttaggtaaag
1140
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1620
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1680
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1740
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1920
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2040

aaaaaaaaaa aaaaaaaaaa
2060

<210> 5172
<211> 104
<212> PRT
<213> Homo sapiens

<400> 5172
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20 25 30
Gln Gly Ser Ile Lys Asp His Thr Ala Gly Leu Arg Leu Thr Ala Leu
35 40 45
Ser Pro Glu His Gln Ser Pro Ala Glu Ser Gly Asp Asn Thr Ser Ser
50 55 60
Leu Gln Arg Gly Thr Ser Pro Pro Ala Ala Thr Ser Leu Arg Leu Leu
65 70 75 80
Leu Ser Ser Lys Asp Ser Leu Gly Phe Lys Cys His Phe Pro Cys Phe
85 90 95
Arg Asp Pro Gly Val Leu Ile Ala
100

<210> 5173
<211> 557
<212> DNA
<213> Homo sapiens

<400> 5173
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agaccaggcg ctggagacac agcagtgaat atactaacat tgtttctgcc ctcacggagc
120
tcacagtgtg acaggagac aaatagacct gtcagtagat aacatgaaa taattggact
180
atgtgctgca gacacaatat ccaggtcta tgagaatgtc aatacagact tcacgtggga
240
aatggtgagg caataaggat cgtttccctt gatgaaatgg agcttcgaga agaaggcagg
300
gtcagttgtg gggagctctg gttggagggtg gagggagtgc attccaagct ggaggagctg
360
tccagggttc tggagactaa acggagcccg ctgggaactg tcttgagccc cgggtgctgaa
420
acagatcgcg gttctcttct cggacctccc gagaagcgct gtccggatat ttggtgctcc
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caagcagtca gccctgctgg tctctgcttt ccagaccggc aaacttcgcc gtctctgtcc
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ctttctggga aaatggc
557

<210> 5174
<211> 93
<212> PRT

<213> Homo sapiens

<400> 5174

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Met Glu Leu Ala Glu Glu Gly Arg Val Ser Cys Gly Glu Leu Trp Leu
 1           5           10           15
Glu Val Glu Gly Val His Ser Lys Leu Glu Glu Leu Ser Arg Val Leu
      20           25           30
Glu Thr Lys Arg Ser Pro Leu Gly Thr Val Leu Ser Pro Gly Ala Glu
      35           40           45
Thr Asp Arg Gly Ser Leu Leu Gly Pro Pro Glu Lys Arg Cys Pro Asp
      50           55           60
Ile Trp Cys Ser Gln Ala Val Ser Pro Ala Gly Leu Cys Phe Pro Asp
65           70           75           80
Arg Gln Thr Ser Pro Ser Leu Ser Leu Ser Gly Lys Met
      85           90

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<210> 5175

<211> 272

<212> DNA

<213> Homo sapiens

<400> 5175

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120
agggtgccc aacaccaggt agggcagcaa cgcccacgcc ctgcccgggc acagcctccc
180
agaggtcact gccatgccgc actgaccgga gagagggcag tggtagagagg tgcattgccac
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cccaggcttg ttccgaaggc ccnnnnnncc nc
272

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<210> 5176

<211> 90

<212> PRT

<213> Homo sapiens

<400> 5176

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Met Ala Ala Pro Glu Thr Arg Trp Arg Gly Asn His Pro Thr Leu Pro
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Ser Arg Glu Leu Arg Ser Gln Pro Ala Ser Leu Cys Val Ala His Asn
      20           25           30
Ser Cys Leu His Val Ser Arg Glu Gly Cys Pro Thr Pro Gly Arg Ala
      35           40           45
Ala Thr Pro Thr Pro Ser Pro Gly Thr Ala Ser Gln Arg Ser Leu Pro
      50           55           60
Cys Arg Thr Asp Arg Arg Glu Gly Ser Gly Glu Arg Cys Met Pro Pro
65           70           75           80
Gln Ala Cys Ser Glu Gly Pro Xaa Xaa Xaa
      85           90

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<210> 5177

<211> 637

<212> DNA
<213> Homo sapiens

<400> 5177
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gaagaacccc gatcgctgag gagcaagggg gcgctaggaa agggaactgg gttgcgacgg
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240
gtgtccgagt agggtaagac cgcaccgacc cagtccgtta ggaaagaagg gaaacgaggc
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360
atggcgaccg cagatactcc ggccccggcc tccagtggcc tctcgccgaa ggaagaaggg
420
gagcttgaag atggggaaat cagtgcgac gataataaca gccagatacg gagtcggagc
480
agcagcagca gcagcggcgg cgggctgtta ccctatccgc ggcaaggcc tctcactcg
540
gccccggggc gtggatctgg cggaggcggg ggctcttctt cgtcatcgtc ctcttctcag
600
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637

<210> 5178
<211> 92
<212> PRT
<213> Homo sapiens

<400> 5178
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Lys Glu Glu Gly Glu Leu Glu Asp Gly Glu Ile Ser Asp Asp Asp Asn
20 25 30
Asn Ser Gln Ile Arg Ser Arg Ser Ser Ser Ser Ser Ser Gly Gly Gly
35 40 45
Leu Leu Pro Tyr Pro Arg Arg Arg Pro Pro His Ser Ala Arg Gly Gly
50 55 60
Gly Ser Gly Gly Gly Gly Gly Ser Ser Ser Ser Ser Ser Ser Ser Gln
65 70 75 80
Gln Gln Leu Arg Asn Phe Ser Arg Ser Arg His Ala
85 90

<210> 5179
<211> 1527
<212> DNA
<213> Homo sapiens

<400> 5179
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120
gatgccatgt ggctggacat agagcacact gagggcaaga ggtacttcac ctgggacaaa
180
aacagattcc ctaaccccaa gaggatgcaa gagctgctca ggaacaaaaa gcgtaagctt
240
gtgggtcatca gtgatcccca catcaagatt gaacctgact actcagtata tgtgaaggcc
300
aaagatcagg gcttctttgt gaagaatcag gaaggggaag actttgaagg ggtgtgttgg
360
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420
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480
aatgagcctt ctgtcttttag agggccagag caaaccatgc agaagaatgc cattcatcat
540
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720
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780
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840
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1140
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1260
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<210> 5180

<211> 444

<212> PRT

<213> Homo sapiens

<400> 5180

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 Phe Asp Gly His Asp Ile Pro Tyr Asp Ala Met Trp Leu Asp Ile Glu
 35 40 45
 His Thr Glu Gly Lys Arg Tyr Phe Thr Trp Asp Lys Asn Arg Phe Pro
 50 55 60
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 Thr Gly Asp Tyr Lys Ser Leu Lys Ile Leu Gly Leu Leu Glu Ile Ser
 20 25 30
 Leu Ala Ile Tyr Ser Ser Leu Val Ser Gln Ile Ser Leu Cys His Pro
 35 40 45
 Gly Trp Ser Thr Val Val Arg Ser Gln Leu Thr Ala Thr Ser Ala Ser
 50 55 60
 Arg Phe Lys Arg Phe Ala Cys Leu Cys Leu Ser Tyr Val Pro Phe Arg
 65 70 75 80
 Lys Ile Leu Leu Gln Glu Lys Ile Trp Phe Gln Asp Val Ser Trp Thr
 85 90 95
 Gly Gly His Val Pro Arg Val Pro Arg Thr Gly Trp Val Tyr Arg Asn
 100 105 110
 Val Gln Arg Pro Glu Ser Val Ser Asp His Met Tyr Arg Met Ala Val
 115 120 125
 Met Ala Met Val Ile Lys Asp Asp Arg Leu Asn Lys Asp Xaa Glu Ala
 130 135 140
 Met Lys Gln Ile Thr Gln Leu Leu Pro Glu Asp Leu Arg Lys Glu Leu
 145 150 155 160
 Tyr Glu Leu Trp Glu Glu Tyr Glu Thr Gln Ser Ser Ala Glu Ala Lys
 165 170 175
 Phe Val Lys Gln Leu Asp Gln Cys Glu Met Ile Leu Gln Ala Ser Glu
 180 185 190
 Tyr Glu Asp Leu Glu His Lys Pro Gly Arg Leu Gln Asp Phe Tyr Asp
 195 200 205
 Ser Thr Ala Gly Lys Phe Asn His Pro Glu Ile Val Gln Leu Val Ser
 210 215 220
 Glu Leu Glu Ala Glu Arg Ser Thr Asn Ile Ala Ala Ala Ala Ser Glu
 225 230 235 240
 Pro His Ser

<210> 5187
 <211> 1712
 <212> DNA
 <213> Homo sapiens

<400> 5187
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 180
 cgaaacctag ccccgacga gaagcgcagc aacgtgcggt gggaccacga gagcgtttgt
 240
 aaatattatc tctgtggttt ttgtcctgcg gaattgttca caaatacacg ttctgatctt
 300

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420
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480
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540
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600
caggggatga tgaaattagt tgagcaatta aaagaagaga gagaactgct aaggtccaca
660
acgtcgacaa ttgaaagctt tgctgcacaa gaaaaacaaa tggaagtttg tgaagtatgt
720
ggagcctttt taatagtagg agatgcccag tcccgggtag atgaccattt gatgggaaaa
780
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840
aaaagaaccg aagaacctga tcgtgatgag cgtctaaaaa aggagaagca agaaagagaa
900
gaaagagaaa aagaacggga gagagaaagg gaagaaagag aaaggaaaag acgaagggaa
960
gaggaagaaa gagaaaaaga aagggtcgtg gacagagaaa gaagaaagag aagtcgttca
1020
cgaagtagac actcaagccg aacatcagac agaagatgca gcaggtctcg ggaccacaaa
1080
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1140
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1200
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1260
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1320
cgagaaaagc agagtgaaga cacaacact gaatcgaag aaagtgtatc taagaatgag
1380
gtcaatggga ccagtgaaga cattaaatct gaagtgcagc gtaagtatgc acagatgaag
1440
atggaactaa gccgagtaag aagacataca aaagcctctt ctgaaggaaa agacagtgtg
1500
gtcctgcaaa acatttttag gtacattgtt ttgtctcagc tattttgtag cagactcgtg
1560
ccccattag tgtgcctctt tggaattat cgccacatt tgtaatatag tcgccattga
1620
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1680
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1712

<210> 5188

<211> 489

<212> PRT

<213> Homo sapiens

<400> 5188

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      20           25           30
Ser Val Cys Lys Tyr Tyr Leu Cys Gly Phe Cys Pro Ala Glu Leu Phe
      35           40           45
Thr Asn Thr Arg Ser Asp Leu Gly Pro Cys Glu Lys Ile His Asp Glu
      50           55           60
Asn Leu Arg Lys Gln Tyr Glu Lys Ser Ser Arg Phe Met Lys Val Gly
      65           70           75           80
Tyr Glu Arg Asp Phe Leu Arg Tyr Leu Gln Ser Leu Leu Ala Glu Val
      85           90           95
Glu Arg Arg Ile Arg Arg Gly His Ala Arg Leu Ala Leu Ser Gln Asn
      100          105          110
Gln Gln Ser Ser Gly Ala Ala Gly Pro Thr Gly Lys Asn Glu Glu Lys
      115          120          125
Ile Gln Val Leu Thr Asp Lys Ile Asp Val Leu Leu Gln Gln Ile Glu
      130          135          140
Glu Leu Gly Ser Glu Gly Lys Val Glu Glu Ala Gln Gly Met Met Lys
      145          150          155          160
Leu Val Glu Gln Leu Lys Glu Glu Arg Glu Leu Leu Arg Ser Thr Thr
      165          170          175
Ser Thr Ile Glu Ser Phe Ala Ala Gln Glu Lys Gln Met Glu Val Cys
      180          185          190
Glu Val Cys Gly Ala Phe Leu Ile Val Gly Asp Ala Gln Ser Arg Val
      195          200          205
Asp Asp His Leu Met Gly Lys Gln His Met Gly Tyr Ala Lys Ile Lys
      210          215          220
Ala Thr Val Glu Glu Leu Lys Glu Lys Leu Arg Lys Arg Thr Glu Glu
      225          230          235          240
Pro Asp Arg Asp Glu Arg Leu Lys Lys Glu Lys Gln Glu Arg Glu Glu
      245          250          255
Arg Glu Lys Glu Arg Glu Arg Glu Arg Glu Glu Arg Glu Arg Lys Arg
      260          265          270
Arg Arg Glu Glu Glu Glu Arg Glu Lys Glu Arg Ala Arg Asp Arg Glu
      275          280          285
Arg Arg Lys Arg Ser Arg Ser Arg Ser Arg His Ser Ser Arg Thr Ser
      290          295          300
Asp Arg Arg Cys Ser Arg Ser Arg Asp His Lys Arg Ser Arg Ser Arg
      305          310          315          320
Glu Arg Arg Arg Ser Arg Ser Arg Asp Arg Arg Arg Ser Arg Ser His
      325          330          335
Asp Arg Ser Glu Arg Lys His Arg Ser Arg Ser Arg Asp Arg Arg Arg
      340          345          350
Ser Lys Ser Arg Asp Arg Lys Ser Tyr Lys His Arg Ser Lys Ser Arg
      355          360          365
Asp Arg Glu Gln Asp Arg Lys Ser Lys Glu Lys Glu Lys Arg Gly Ser
      370          375          380
Asp Asp Lys Lys Ser Ser Val Lys Ser Gly Ser Arg Glu Lys Gln Ser
      385          390          395          400
Glu Asp Thr Asn Thr Glu Ser Lys Glu Ser Asp Thr Lys Asn Glu Val
      405          410          415
Asn Gly Thr Ser Glu Asp Ile Lys Ser Glu Val Gln Arg Lys Tyr Ala

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420 425 430
 Gln Met Lys Met Glu Leu Ser Arg Val Arg Arg His Thr Lys Ala Ser
 435 440 445
 Ser Glu Gly Lys Asp Ser Val Val Leu Gln Asn Ile Leu Arg Tyr Ile
 450 455 460
 Val Leu Ser Gln Leu Phe Cys Ser Arg Leu Val Pro Pro Leu Val Cys
 465 470 475 480
 Leu Phe Gly Asn Tyr Arg Pro His Leu
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<210> 5189

<211> 323

<212> DNA

<213> Homo sapiens

<400> 5189

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 120
 aatccaaaaa taacaaaatg tttagcaatt caggtaatgt caagcagtat tcaaacacat
 180
 gaagttaatc attccttaat tctctgtttat ttatatattca tttttgcttt ctttttactc
 240
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 300
 gacaaacatc catgtgctgc taa
 323

<210> 5190

<211> 100

<212> PRT

<213> Homo sapiens

<400> 5190

Met Ser His Cys Thr Trp Pro Gly Glu Ile Val Phe Ile Thr Tyr Asp
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 Lys Cys Leu Ser Asn Ser Trp Leu Glu Ser Gly Leu Thr Ile Asn Asn
 20 25 30
 Trp Asn Pro Lys Ile Thr Lys Cys Leu Ala Ile Gln Val Met Ser Ser
 35 40 45
 Ser Ile Gln Thr His Glu Val Asn His Ser Leu Ile Pro Val Tyr Leu
 50 55 60
 Tyr Phe Ile Phe Ala Phe Phe Leu Leu His Val Leu Phe Leu Gln Lys
 65 70 75 80
 Ser Gln Val Lys Cys Phe Trp Gly Thr Leu Gly Gly Gly Asp Lys His
 85 90 95
 Pro Cys Ala Ala
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<210> 5191

<211> 1632

<212> DNA

<213> Homo sapiens

<400> 5191
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120
tccttctgac agcagataac atgtcgctcg cggcgtcagc aagaggcgca tgcgccttg
180
cgtgggaggc cgggtgcgca ggactggaac gcggttcctc cttcttcccc gccccgccc
240
gcttccggcg gaagcggcct caacaaggga aactttattg tccccgtggg gcagtcgagg
300
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360
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420
gtctggcagt cttccagtgt ggtgttcac acgggtgccg gcacagcac tgcctctgg
480
atccccgact tcaggggtcc ccacggagtc tggaccatgg aggagcgagg tctggcccc
540
aagttcgaca ccacctttga gagcgcgcg cccacgcaga cccacatggc gctggtgag
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ctggagcgcg tgggcctcct ccgcttcctg gtcagccaga acgtggacgg gctccatgtg
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1080
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1140
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1260
accggatca acggctctat ccccgccggc cccaagcagg agccctgcgc ccagcacaac
1320
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1380
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1440
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 1620
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 1632

<210> 5192
 <211> 377
 <212> PRT
 <213> Homo sapiens

<400> 5192
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 Lys Cys Gly Leu Pro Glu Ile Phe Asp Pro Pro Glu Glu Leu Glu Arg
 20 25 30
 Lys Val Trp Glu Leu Ala Arg Leu Val Trp Gln Ser Ser Ser Val Val
 35 40 45
 Phe His Thr Gly Ala Gly Ile Ser Thr Ala Ser Gly Ile Pro Asp Phe
 50 55 60
 Arg Gly Pro His Gly Val Trp Thr Met Glu Glu Arg Gly Leu Ala Pro
 65 70 75 80
 Lys Phe Asp Thr Thr Phe Glu Ser Ala Arg Pro Thr Gln Thr His Met
 85 90 95
 Ala Leu Val Gln Leu Glu Arg Val Gly Leu Leu Arg Phe Leu Val Ser
 100 105 110
 Gln Asn Val Asp Gly Leu His Val Arg Ser Gly Phe Pro Arg Asp Lys
 115 120 125
 Leu Ala Glu Leu His Gly Asn Met Phe Val Glu Glu Cys Ala Lys Cys
 130 135 140
 Lys Thr Gln Tyr Val Arg Asp Thr Val Val Gly Thr Met Gly Leu Lys
 145 150 155 160
 Ala Thr Gly Arg Leu Cys Thr Val Ala Lys Ala Arg Gly Leu Arg Ala
 165 170 175
 Cys Arg Gly Gly Cys Glu Ala Pro Glu Asp Ser Pro Gln Leu Pro His
 180 185 190
 Cys Arg Gly Glu Leu Arg Asp Thr Ile Leu Asp Trp Glu Asp Ser Leu
 195 200 205
 Pro Asp Arg Asp Leu Ala Leu Ala Asp Glu Ala Ser Arg Asn Ala Asp
 210 215 220
 Leu Ser Ile Thr Leu Gly Thr Ser Leu Gln Ile Arg Pro Ser Gly Asn
 225 230 235 240
 Leu Pro Leu Ala Thr Lys Arg Arg Gly Gly Arg Leu Val Ile Val Asn
 245 250 255
 Leu Gln Pro Thr Lys His Asp Arg His Ala Asp Leu Arg Ile His Gly
 260 265 270
 Tyr Val Asp Glu Val Met Thr Arg Leu Met Lys His Leu Gly Leu Glu
 275 280 285
 Ile Pro Ala Trp Asp Gly Pro Arg Val Leu Glu Arg Ala Leu Pro Pro
 290 295 300
 Leu Pro Arg Pro Pro Thr Pro Lys Leu Glu Pro Lys Glu Glu Ser Pro
 305 310 315 320
 Thr Arg Ile Asn Gly Ser Ile Pro Ala Gly Pro Lys Gln Glu Pro Cys
 325 330 335
 Ala Gln His Asn Gly Ser Glu Pro Ala Ser Pro Lys Arg Glu Arg Pro

340 345 350
 Thr Ser Pro Ala Pro His Arg Pro Pro Lys Arg Gly Pro Leu Val Arg
 355 360 365
 Phe Arg Glu Glu Ala Thr Pro Gln Arg
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<210> 5193
 <211> 554
 <212> DNA
 <213> Homo sapiens

<400> 5193
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 cagcagctct gtgtcccggc atggccactg tggggcagag acacagcagg tcccacatct
 180
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 240
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 360
 tccgtggggg ggtctccggg aggtttgcct gtgtcaggcc tgtgctgctt ctggcggagg
 420
 cgcttgcca gcctcatcca gcctggtgtc tccggtgcca cgcgctaaca cttcagtgc
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<210> 5194
 <211> 94
 <212> PRT
 <213> Homo sapiens

<400> 5194
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 Phe Pro Ala Thr Pro Pro Gly Arg Val Ser Arg Gly Trp Gly Pro Trp
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 Gly Gly Leu Arg Glu Val Cys Leu Cys Gln Ala Cys Ala Ala Ser Gly
 35 40 45
 Gly Gly Ala Cys Pro Ala Ser Ser Ser Leu Val Ser Pro Val Pro Arg
 50 55 60
 Ala Asn Thr Phe Ser Ala Arg Ser Gly Thr Arg Leu Glu Gly Pro Ala
 65 70 75 80
 Leu Pro Arg Pro Arg Leu Gln Pro Asp Ala Ala Ser Thr Arg
 85 90

<210> 5195
 <211> 964

<212> DNA

<213> Homo sapiens

<400> 5195

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480
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660
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gccg
964

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<210> 5196

<211> 267

<212> PRT

<213> Homo sapiens

<400> 5196

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Met Pro Ser Glu Ala Gln Cys Val Ile Tyr His Glu Leu Gln Leu Ser
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Leu Ala Cys Lys Val Ala Asp Lys Val Leu Glu Gly Gln Leu Leu Glu
20      25      30
Thr Ile Ser Gln Leu Tyr Leu Ser Leu Gly Thr Glu Arg Ala Tyr Lys
35      40      45
Ser Ala Leu Asp Tyr Thr Lys Arg Ser Leu Gly Ile Phe Ile Asp Leu
50      55      60
Gln Lys Lys Glu Lys Glu Ala His Ala Trp Leu Gln Ala Gly Lys Ile

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65          70          75          80
Tyr Tyr Ile Leu Arg Gln Ser Glu Leu Val Asp Leu Tyr Ile Gln Val
          85          90          95
Ala Gln Asn Val Ala Leu Tyr Thr Gly Asp Pro Asn Leu Gly Leu Glu
          100          105          110
Leu Phe Glu Ala Ala Gly Asp Ile Phe Phe Asp Gly Ala Trp Glu Arg
          115          120          125
Glu Lys Ala Val Ser Phe Tyr Arg Asp Arg Ala Leu Pro Leu Ala Val
          130          135          140
Thr Thr Gly Asn Arg Lys Ala Glu Leu Arg Leu Cys Asn Lys Leu Val
145          150          155          160
Ala Leu Leu Ala Thr Leu Glu Glu Pro Gln Glu Gly Leu Glu Phe Ala
          165          170          175
His Met Ala Leu Ala Leu Ser Ile Thr Leu Gly Asp Arg Leu Asn Glu
          180          185          190
Arg Val Ala Tyr His Arg Leu Ala Ala Leu Gln His Arg Leu Gly His
          195          200          205
Gly Glu Leu Ala Glu His Phe Tyr Leu Lys Ala Leu Ser Leu Cys Asn
          210          215          220
Ser Pro Leu Glu Phe Asp Glu Glu Thr Leu Tyr Tyr Val Lys Val Tyr
225          230          235          240
Leu Val Leu Gly Asp Ile Ile Phe Tyr Asp Leu Lys Asp Pro Phe Asp
          245          250          255
Ala Ala Gly Tyr Tyr Gln Leu Ala Leu Ala Ala
          260          265

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<210> 5197

<211> 1045

<212> DNA

<213> Homo sapiens

<400> 5197

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120
ctcatgatcc gcccacctca gcctcgcaaa gtgctgggat tacaggcatg agccaccacg
180
tccggccacc actgactttt tcattctttc tcattcttcc tgggccctcc tgctgttgta
240
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360
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420
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540
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600
ttcattcagt cagagatgtc cgaggcggtg gagcgagccc gaaagcgccg ggaagaagag
660

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gagcgccgag cccgggagga gaggctggcc gcctgtgctg ccaaactcaa gcagctggac
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 780
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 840
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 900
 gtgtccccag cagtggcaca gagcaacagc agtgaggaag aggccagaga ggctgggtcc
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 1020
 caacaacagc aggagcagct gtaca
 1045

<210> 5198
 <211> 283
 <212> PRT
 <213> Homo sapiens

<400> 5198
 Leu Phe His Ser Phe Ser Phe Phe Leu Gly Pro Pro Ala Val Val Gly
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 Pro His Glu Glu Val Asp Tyr Ser Glu Lys Leu Lys Phe Ser Asp Asp
 20 25 30
 Glu Glu Glu Glu Glu Val Val Lys Asp Gly Arg Pro Lys Trp Asn Ser
 35 40 45
 Trp Asp Pro Arg Arg Gln Arg Gln Leu Ser Met Ser Ser Ala Asp Ser
 50 55 60
 Ala Asp Ala Lys Arg Thr Arg Glu Glu Gly Lys Asp Trp Ala Glu Ala
 65 70 75 80
 Val Gly Ala Ser Arg Val Val Arg Lys Ala Pro Asp Pro Gln Pro Pro
 85 90 95
 Pro Arg Lys Leu His Gly Trp Ala Pro Gly Pro Asp Tyr Gln Lys Ser
 100 105 110
 Ser Met Gly Ser Met Phe Arg Gln Gln Ser Ile Glu Asp Lys Glu Asp
 115 120 125
 Lys Pro Pro Pro Arg Gln Lys Phe Ile Gln Ser Glu Met Ser Glu Ala
 130 135 140
 Val Glu Arg Ala Arg Lys Arg Arg Glu Glu Glu Glu Arg Arg Ala Arg
 145 150 155 160
 Glu Glu Arg Leu Ala Ala Cys Ala Ala Lys Leu Lys Gln Leu Asp Gln
 165 170 175
 Lys Cys Lys Gln Ala Arg Lys Ala Gly Glu Ala Arg Lys Gln Ala Glu
 180 185 190
 Lys Glu Val Pro Trp Ser Pro Ser Ala Glu Lys Ala Ser Pro Gln Glu
 195 200 205
 Asn Gly Pro Ala Val His Lys Gly Ser Pro Glu Phe Pro Ala Gln Glu
 210 215 220
 Thr Pro Thr Thr Phe Pro Glu Glu Ala Pro Thr Val Ser Pro Ala Val
 225 230 235 240
 Ala Gln Ser Asn Ser Ser Glu Glu Glu Ala Arg Glu Ala Gly Ser Pro
 245 250 255
 Ala Gln Glu Phe Lys Tyr Gln Lys Ser Leu Pro Pro Arg Phe Gln Arg

260 265 270
 Gln Gln Gln Gln Gln Gln Gln Glu Gln Leu Tyr
 275 280

<210> 5199
 <211> 1332
 <212> DNA
 <213> Homo sapiens

<400> 5199
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 120
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 180
 aaagtctccg ggaccattat ggcagtcaag tggacgggtg ggcattcttc tcctgtcctc
 240
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 300
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 360
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 420
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 480
 gaagaaatca attgtctttc attgaatcaa acggaaaacc tgctggcttc tgctgacgac
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 cattccaata tctgctcttc agtggctttt cggcctcaga ggcctcagag cctgggtgtca
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 720
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 780
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<213> Homo sapiens

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<212> DNA

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 aagaagtgac agactctttt gtctcacgtg gtggatccgg tggaaatcca agctctgggc
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 1980
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 2011

<210> 5206

<211> 248

<212> PRT

<213> Homo sapiens

<400> 5206

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			20					25					30		
Asp	Arg	Arg	Lys	Leu	Arg	Ala	Asp	Val	Thr	Thr	Ala	Phe	Pro	Thr	Leu
			35				40					45			
Gly	Thr	Asp	Gln	Val	Ser	Glu	Leu	Val	Pro	Gly	Lys	Glu	Glu	Leu	Asn

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 Ile Val Lys Leu Tyr Ala His Lys Gly Asp Ala Val Thr Val Tyr Val
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 Ser Gly Gly Asn Pro Ile Leu Phe Glu Leu Glu Lys Asn Leu Tyr Pro
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 Thr Val Tyr Thr Leu Trp Ser Tyr Pro Asp Leu Leu Pro Thr Phe Thr
 100 105 110
 Thr Trp Pro Leu Val Leu Glu Lys Leu Val Gly Gly Ala Asp Leu Met
 115 120 125
 Leu Pro Gly Leu Val Met Pro Pro Ala Gly Leu Pro Gln Val Gln Lys
 130 135 140
 Gly Asp Leu Cys Ala Ile Ser Leu Val Gly Asn Arg Ala Pro Val Ala
 145 150 155 160
 Ile Gly Val Ala Ala Met Ser Thr Ala Glu Met Leu Thr Ser Gly Leu
 165 170 175
 Lys Gly Arg Gly Phe Ser Val Leu His Thr Tyr Gln Asp His Leu Trp
 180 185 190
 Arg Ser Gly Asn Lys Ser Ser Pro Pro Ser Ile Ala Pro Leu Ala Leu
 195 200 205
 Asp Ser Ala Asp Leu Ser Glu Glu Lys Gly Ser Val Gln Met Asp Ser
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<210> 5207

<211> 594

<212> DNA

<213> Homo sapiens

<400> 5207

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<210> 5208

<211> 136
 <212> PRT
 <213> Homo sapiens

<400> 5208
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 20 25 30
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 35 40 45
 Asn Gly His Val His Asp Leu Gln Ile Leu Asp Phe Pro Pro Ile Ser
 50 55 60
 Ala Phe Pro Val Asn Thr Leu Gln Glu Trp Ala Asp Thr Cys Cys Arg
 65 70 75 80
 Gly Leu Arg Ser Val His Ala Tyr Ile Leu Val Tyr Asp Ile Cys Cys
 85 90 95
 Phe Asp Ser Phe Glu Tyr Val Lys Thr Ile Arg Gln Gln Ile Leu Glu
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<210> 5209
 <211> 1592
 <212> DNA
 <213> Homo sapiens

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 720


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<210> 5210

<211> 85

<212> PRT

<213> Homo sapiens

<400> 5210

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          20            25            30
Ala Leu Leu Ile Leu Tyr Ala Leu Leu Ser Arg Leu Thr Gly Ser Arg
          35            40            45
Ala Ser Gly Ala Gln Leu Glu Ala Lys Val Arg Gly Leu Glu Arg Gln
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Val Glu Glu Leu Arg Trp Arg Gln Arg Arg Ala Ala Lys Gly Ala Arg
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Ser Val Glu Glu Glu
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<210> 5211

<211> 602

<212> DNA

<213> Homo sapiens

<400> 5211

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<210> 5212

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<212> PRT

<213> Homo sapiens

<400> 5212

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		20						25					30		
Arg	Ile	Lys	Ile	Asn	Glu	Glu	Phe	Lys	Asn	Asn	Lys	Ser	Glu	Thr	Ser
		35					40					45			
Ser	Lys	Lys	Ile	Glu	Glu	Leu	Met	Lys	Ile	Gly	Ser	Asp	Val	Glu	Leu
		50				55				60					
Leu	Leu	Arg	Thr	Ser	Val	Ile	Gln	Gly	Ile	His	Thr	Asp	His	Asn	Thr
65					70				75					80	
Leu	Lys	Leu	Val	Pro	Arg	Lys	Asp	Leu	Leu	Val	Glu	Asn	Val	Pro	Tyr
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<210> 5213

<211> 4387

<212> DNA

<213> Homo sapiens

<400> 5213

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<210> 5214

<211> 1364

<212> PRT

<213> Homo sapiens

<400> 5214

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		20					25				30				
Glu	Lys	Thr	Lys	Leu	Ile	Ser	Cys	Leu	Gly	Ala	Phe	Arg	Gln	Phe	Trp
		35				40					45				
Gly	Gly	Leu	Ser	Gln	Glu	Ser	His	Glu	Gln	Cys	Ile	Gln	Trp	Ile	Val
	50					55				60					
Lys	Phe	Ile	His	Gly	Gln	His	Ser	Pro	Lys	Arg	Ile	Ser	Phe	Leu	Tyr

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              85              90              95
Val Cys Glu Ser Leu Ile Asn Ser Asp Thr Leu Glu Trp Glu Arg Thr
              100              105              110
Gln Leu Trp Ala Leu Thr Phe Lys Leu Val Arg Lys Ile Ile Gly Gly
              115              120              125
Val Asp Tyr Lys Gly Val Arg Asp Leu Leu Lys Val Ile Leu Glu Lys
              130              135              140
Ile Leu Thr Ile Pro Asn Thr Val Ser Ser Ala Val Val Gln Gln Leu
145              150              155              160
Leu Ala Ala Arg Glu Val Ile Ala Tyr Ile Leu Glu Arg Asn Ala Cys
              165              170              175
Leu Leu Pro Ala Tyr Phe Ala Val Thr Glu Ile Arg Lys Leu Tyr Pro
              180              185              190
Glu Gly Lys Leu Pro His Trp Leu Leu Gly Asn Leu Val Ser Asp Phe
              195              200              205
Val Asp Thr Phe Arg Pro Thr Ala Arg Ile Asn Ser Ile Cys Gly Arg
              210              215              220
Cys Ser Leu Leu Pro Val Asn Asn Ser Gly Ala Ile Cys Asn Ser
225              230              235              240
Trp Lys Leu Asp Pro Ala Thr Leu Arg Phe Pro Leu Lys Gly Leu Leu
              245              250              255
Pro Tyr Asp Lys Asp Leu Phe Glu Pro Gln Thr Ala Leu Leu Arg Tyr
              260              265              270
Val Leu Glu Gln Pro Tyr Ser Arg Asp Met Val Cys Asn Met Leu Gly
              275              280              285
Leu Asn Lys Gln His Lys Gln Arg Cys Pro Val Leu Glu Asp Gln Leu
              290              295              300
Val Asp Leu Val Val Tyr Ala Met Glu Arg Ser Glu Thr Glu Glu Lys
305              310              315              320
Phe Asp Asp Gly Gly Thr Ser Gln Leu Leu Trp Gln His Leu Ser Ser
              325              330              335
Gln Leu Ile Phe Phe Val Leu Phe Gln Phe Ala Ser Phe Pro His Met
              340              345              350
Val Leu Ser Leu His Gln Lys Leu Ala Gly Arg Gly Leu Ile Lys Gly
              355              360              365
Arg Asp His Leu Met Trp Val Leu Leu Gln Phe Ile Ser Gly Ser Ile
              370              375              380
Gln Lys Asn Ala Leu Ala Asp Phe Leu Pro Val Met Lys Leu Phe Asp
385              390              395              400
Leu Leu Tyr Pro Glu Lys Glu Tyr Ile Pro Val Pro Asp Ile Asn Lys
              405              410              415
Pro Gln Ser Thr His Ala Phe Ala Met Thr Cys Ile Trp Ile His Leu
              420              425              430
Asn Arg Lys Ala Gln Asn Asp Asn Ser Lys Leu Gln Ile Pro Ile Pro
              435              440              445
His Ser Leu Arg Leu His His Glu Phe Leu Gln Gln Ser Leu Arg His
              450              455              460
Lys Ser Leu Gln Met Asn Asp Tyr Lys Ile Ala Leu Leu Cys Asn Ala
465              470              475              480
Tyr Ser Thr Asn Ser Glu Cys Val Thr Leu Pro Met Gly Ala Leu Val
              485              490              495
Glu Thr Ile Tyr Gly Asn Gly Ile Met Arg Leu Pro Leu Pro Gly Thr

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530		535		540	
Thr Arg Val Ile Lys Leu Ala His Ala Lys Ser Ser Val Ala Leu Ala					
545		550		555	560
Pro Ala Leu Val Glu Thr Tyr Ser Arg Leu Leu Val Tyr Met Glu Ile					
565		570		575	
Glu Ser Leu Gly Ile Lys Gly Phe Ile Ser Gln Leu Leu Pro Thr Val					
580		585		590	
Phe Lys Ser His Ala Trp Gly Ile Leu His Thr Leu Leu Glu Met Phe					
595		600		605	
Ser Tyr Arg Met His His Ile Gln Pro His Tyr Arg Val Gln Leu Leu					
610		615		620	
Ser His Leu His Thr Leu Ala Ala Val Ala Gln Thr Asn Gln Asn Gln					
625		630		635	640
Leu His Leu Cys Val Glu Ser Thr Ala Leu Arg Leu Ile Thr Ala Leu					
645		650		655	
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660		665		670	
Lys Thr Val Leu Ser Ala Glu Ser Glu Glu Leu Asn Arg Ala Leu Ile					
675		680		685	
Leu Thr Leu Ala Arg Ala Thr His Val Thr Asp Phe Phe Thr Gly Ser					
690		695		700	
Asp Ser Ile Gln Gly Thr Trp Cys Lys Asp Ile Leu Gln Thr Ile Met					
705		710		715	720
Ser Phe Thr Pro His Asn Trp Ala Ser His Thr Leu Ser Cys Phe Pro					
725		730		735	
Gly Pro Leu Gln Ala Phe Phe Lys Gln Asn Asn Val Pro Gln Glu Ser					
740		745		750	
Arg Phe Asn Leu Lys Lys Asn Val Glu Glu Glu Tyr Arg Lys Trp Lys					
755		760		765	
Ser Met Ser Asn Glu Asn Asp Ile Ile Thr His Phe Ser Met Gln Gly					
770		775		780	
Ser Pro Pro Leu Phe Leu Cys Leu Leu Trp Lys Met Leu Leu Glu Thr					
785		790		795	800
Asp His Ile Asn Gln Ile Gly Tyr Arg Val Leu Glu Arg Ile Gly Ala					
805		810		815	
Arg Ala Leu Val Ala His Val Arg Thr Phe Ala Asp Phe Leu Val Tyr					
820		825		830	
Glu Phe Ser Thr Ser Ala Gly Gly Gln Gln Leu Asn Lys Cys Ile Glu					
835		840		845	
Ile Leu Asn Asp Met Val Trp Lys Tyr Asn Ile Val Thr Leu Asp Arg					
850		855		860	
Leu Ile Leu Cys Leu Ala Met Arg Ser His Glu Gly Asn Glu Ala Gln					
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Val Cys Tyr Phe Ile Ile Gln Leu Leu Leu Leu Lys Pro Asn Asp Phe					
885		890		895	
Arg Asn Arg Val Ser Asp Phe Val Lys Glu Asn Ser Pro Glu His Trp					
900		905		910	
Leu Gln Asn Asp Trp His Thr Lys His Met Asn Tyr His Lys Lys Tyr					
915		920		925	
Pro Glu Lys Leu Tyr Phe Glu Gly Leu Ala Glu Gln Val Asp Pro Pro					

930 935 940
 Val Gln Ile Gln Ser Pro Tyr Leu Pro Ile Tyr Phe Gly Asn Val Cys
 945 950 955 960
 Leu Arg Phe Leu Pro Val Phe Asp Ile Val Ile His Arg Phe Leu Glu
 965 970 975
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 980 985 990
 Gly Leu Tyr Lys Phe His Asp Arg Pro Val Thr Tyr Leu Tyr Asn Thr
 995 1000 1005
 Leu His Tyr Tyr Glu Met His Leu Arg Asp Arg Ala Phe Leu Lys Arg
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 Val Pro Arg Glu Asn Ile Thr Ala Trp Met Asn Ala Ile Gly Leu Ile
 1140 1145 1150
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 1170 1175 1180
 Gly Tyr Pro Phe Arg Leu Phe Asp Phe Thr Ala Cys His Gln Ser Tyr
 1185 1190 1195 1200
 Ser Glu Met Ser Cys Ser Tyr Thr Leu Ala Leu Ala His Ala Val Trp
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 His His Ser Ser Ile Gly Gln Leu Ser Leu Ile Pro Lys Phe Leu Thr
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 Glu Val Leu Leu Pro Ile Val Lys Thr Glu Phe Gln Leu Leu Tyr Val
 1235 1240 1245
 Tyr His Leu Val Gly Pro Phe Leu Gln Arg Phe Gln Gln Glu Arg Thr
 1250 1255 1260
 Arg Cys Met Ile Glu Ile Gly Val Ala Phe Tyr Asp Met Leu Leu Asn
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 Val Asp Gln Cys Ser Thr His Leu Asn Tyr Met Asp Pro Ile Cys Asp
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 Phe Leu Tyr His Met Lys Tyr Met Phe Thr Gly Asp Ser Val Lys Glu
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 Gln Val Glu Lys Ile Ile Cys Asn Leu Lys Pro Ala Leu Lys Leu Arg
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 Leu Arg Phe Ile Thr His Ile Ser Lys Met Glu Pro Ala Ala Val Pro
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<210> 5215
 <211> 548
 <212> DNA
 <213> Homo sapiens

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<210> 5216
 <211> 83
 <212> PRT
 <213> Homo sapiens

<400> 5216
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 20 25 30
 Val Asp Glu Ala Ala Ala Gly Xaa Glu Arg Thr Asp Cys Ser Ser Glu
 35 40 45
 Arg Arg Ser Ala Val Gly Ser Met Leu Ser Asp Ser Ile Thr Pro His
 50 55 60
 Arg Glu Ile Phe His Glu Arg Lys Ser Pro Ser Leu Trp Pro Thr Phe
 65 70 75 80
 Leu Trp Ser

<210> 5217
 <211> 4189
 <212> DNA
 <213> Homo sapiens

<400> 5217

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<210> 5218

<211> 541

<212> PRT

<213> Homo sapiens

<400> 5218

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			20					25								
Ser	Thr	Leu	Arg	Cys	Cys	Ser	Gly	Asn	Ser	Ser	Asp	Trp	Leu	Gly	Gly	45
		35				40										
Ser	Pro	Gly	Ala	Ala	Pro	Gly	Thr	Leu	Cys	Cys	Phe	Leu	Trp	Pro	Arg	60
		50				55										
Val	Gly	Thr	Gly	Leu	Cys	Pro	Gly	Leu	Ser	Leu	Pro	Gln	Pro	His	Leu	80
65					70					75						
Pro	His	Cys	Gln	Pro	Gln	Ser	Leu	Pro	Ala	Xaa	Ala	Arg	Val	Leu	Ser	95
			85					90								
Ser	Ser	Glu	Thr	Pro	Ala	Arg	Thr	Leu	Pro	Phe	Thr	Thr	Gly	Leu	Ile	110
		100						105								
Tyr	Asp	Ser	Val	Met	Leu	Lys	His	Gln	Cys	Ser	Cys	Gly	Asp	Asn	Ser	

115 120 125
 Arg His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu
 130 135 140
 Gln Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys
 145 150 155 160
 Ala Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu
 165 170 175
 Leu Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys
 180 185 190
 Leu Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly
 195 200 205
 Gly Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser
 210 215 220
 Asn Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys
 225 230 235 240
 Val Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro
 245 250 255
 Gly His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn
 260 265 270
 Ser Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Gln Ser Lys Ala Ser
 275 280 285
 Lys Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Ala Thr Gln
 290 295 300
 Gln Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg
 305 310 315 320
 His Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val
 325 330 335
 Gly Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly
 340 345 350
 Gly Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg
 355 360 365
 Ile Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu
 370 375 380
 Val Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly
 385 390 395 400
 Gly Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu
 405 410 415
 Met Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His
 420 425 430
 Asp Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu
 435 440 445
 Leu Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys
 450 455 460
 Pro Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His
 465 470 475 480
 Ser Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser
 485 490 495
 Trp Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val
 500 505 510
 Thr Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro
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 Ser Glu Gln Leu Val Glu Glu Glu Pro Met Asn Leu
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<210> 5219
<211> 1212
<212> DNA
<213> Homo sapiens

<400> 5219
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<210> 5220
<211> 179
<212> PRT
<213> Homo sapiens

<400> 5220

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Val Pro Pro Glu Lys Leu Glu Gly Ala Gly Ser Ser Ser Ala Pro Glu
      20           25           30
Arg Asn Cys Val Gly Ser Ser Leu Pro Glu Ala Ser Pro Pro Ala Pro
      35           40           45
Glu Pro Ser Ser Pro Asn Ala Ala Val Pro Glu Ala Ile Pro Thr Pro
      50           55           60
Arg Ala Ala Ala Ser Ala Ala Leu Glu Leu Pro Leu Gly Pro Ala Pro
65           70           75           80
Val Ser Val Ala Pro Gln Ala Glu Ala Glu Ala Arg Ser Thr Pro Gly
      85           90           95
Pro Ala Gly Ser Arg Leu Gly Pro Glu Thr Phe Arg Gln Arg Phe Arg
      100          105          110
Gln Phe Arg Tyr Gln Asp Ala Ala Gly Pro Arg Glu Ala Phe Arg Gln
      115          120          125
Leu Arg Glu Leu Ser Arg Gln Trp Leu Arg Pro Asp Ile Arg Thr Lys
      130          135          140
Glu Gln Ile Val Glu Met Leu Val Gln Glu Gln Leu Leu Ala Ile Leu
145          150          155          160
Pro Glu Ala Ala Arg Ala Arg Arg Ile Arg Arg Arg Thr Asp Val Arg
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Ile Thr Gly

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<210> 5221

<211> 497

<212> DNA

<213> Homo sapiens

<400> 5221

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<210> 5222

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5222

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 20           25           30
Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg Asp Pro
 35           40           45
Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu Glu Gln
 50           55           60
Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile Ile Pro
 65           70           75           80
Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val Pro Gly
 85           90           95
Thr Lys Asp Asn Leu Met Arg Pro Pro Gly Met Thr Ser Ser Ser Gln
 100          105          110

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<210> 5223

<211> 637

<212> DNA

<213> Homo sapiens

<400> 5223

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180
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<210> 5224

<211> 148

<212> PRT

<213> Homo sapiens

<400> 5224

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Xaa Thr Ile Phe Asp Asn Glu Ala Lys Asp Val Glu Arg Glu Val Cys

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      20           25           30
Ser Glu Asp Pro Lys His Phe Lys Ser Glu Lys Thr Gly Arg Gly Gln
      35           40           45
Leu Arg Glu Gly Trp Arg Asp Ser His Gln Pro Ile Met Cys Ser Tyr
      50           55           60
Lys Leu Val Thr Val Lys Phe Glu Val Trp Gly Leu Gln Thr Arg Val
      65           70           75           80
Glu Gln Phe Val His Lys Val Val Arg Asp Ile Leu Leu Ile Gly His
      85           90           95
Arg Gln Ala Phe Ala Trp Val Asp Glu Trp Tyr Asp Met Thr Met Asp
      100          105          110
Asp Val Arg Glu Tyr Glu Lys Asn Met His Glu Gln Thr Asn Ile Lys
      115          120          125
Val Cys Asn Gln His Ser Ser Pro Val Asp Asp Ile Glu Ser His Ala
      130          135          140
Gln Thr Ser Thr
145

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<210> 5225
 <211> 394
 <212> DNA
 <213> Homo sapiens

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<400> 5225
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240
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300
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ccccacatga aggttaggaa ccaagagaac ggcc
394

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<210> 5226
 <211> 113
 <212> PRT
 <213> Homo sapiens

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<400> 5226
Met Trp Gly Lys Gln Val Gln His Ser Pro Phe Val Thr Pro Leu Pro
1           5           10           15
Glu Pro Thr Val Ser Ser His Pro Leu Gly Asp Gly Gln Ser Pro Arg
      20           25           30
Phe Ala Ser His Ile Pro Ala Asp Pro Pro Cys Leu Pro Pro Gly Leu
      35           40           45
Gly Gly Ala Val Ser Thr Gly Gly Gln Ala Ile Ala Pro Ser Asp Gln

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      50              55              60
Gly Pro Leu Ser Trp Tyr Tyr Leu Phe Pro Trp Ala Cys Pro Ser Asp
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Gln Ala Cys Gln Asp Ser Ala Tyr Val Ser Pro Ser Pro Ser Ser Ala
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Leu Gly Pro Ser Leu Pro Gln Pro Gln Leu Pro Pro Pro Gly Ser Pro
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Pro

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<210> 5227
 <211> 2366
 <212> DNA
 <213> Homo sapiens

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1140

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<210> 5228

<211> 550

<212> PRT

<213> Homo sapiens

<400> 5228

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35 40 45
 Lys Ala Arg Glu Arg Leu Glu Asp Ser Lys Leu Glu Ala Val Ser Asp
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 Asn Asn Leu Glu Leu Val Asn Glu Ile Leu Glu Asp Ile Thr Pro Leu
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 Ile Asn Val Asp Glu Asn Val Ala Glu Leu Val Gly Ile Leu Lys Glu
 85 90 95
 Pro His Phe Gln Ser Leu Leu Glu Ala His Asp Ile Val Ala Ser Lys
 100 105 110
 Cys Tyr Asp Ser Pro Pro Ser Ser Pro Glu Met Asn Asn Ser Ser Ile
 115 120 125
 Asn Asn Gln Leu Leu Pro Val Asp Ala Ile Arg Ile Leu Gly Ile His
 130 135 140
 Lys Arg Ala Gly Glu Pro Leu Gly Val Thr Phe Arg Val Glu Asn Asn
 145 150 155 160
 Asp Leu Val Ile Ala Arg Ile Leu His Gly Gly Met Ile Asp Arg Gln
 165 170 175
 Gly Leu Leu His Val Gly Asp Ile Ile Lys Glu Val Asn Gly His Glu
 180 185 190
 Val Gly Asn Asn Pro Lys Glu Leu Gln Glu Leu Leu Lys Asn Ile Ser
 195 200 205
 Gly Ser Val Thr Leu Lys Ile Leu Pro Ser Tyr Arg Asp Thr Ile Thr
 210 215 220
 Pro Gln Gln Val Phe Val Lys Cys His Phe Asp Tyr Asn Pro Tyr Asn
 225 230 235 240
 Asp Asn Leu Ile Pro Cys Lys Glu Ala Gly Leu Lys Phe Ser Lys Gly
 245 250 255
 Glu Ile Leu Gln Ile Val Asn Arg Glu Asp Pro Asn Trp Trp Gln Ala
 260 265 270
 Ser His Val Lys Glu Gly Gly Ser Ala Gly Leu Ile Pro Ser Gln Phe
 275 280 285
 Leu Glu Glu Lys Arg Lys Ala Phe Val Arg Arg Asp Trp Asp Asn Ser
 290 295 300
 Gly Pro Phe Cys Gly Thr Ile Ser Ser Lys Lys Lys Lys Lys Met Met
 305 310 315 320
 Tyr Leu Thr Thr Arg Asn Ala Glu Phe Asp Arg His Glu Ile Gln Ile
 325 330 335
 Tyr Glu Glu Val Ala Lys Met Pro Pro Phe Gln Arg Lys Thr Leu Val
 340 345 350
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 355 360 365
 Ile Val Leu Asn Pro Thr Arg Phe Gly Thr Thr Val Pro Phe Thr Ser
 370 375 380
 Arg Lys Pro Arg Glu Asp Glu Lys Asp Gly Gln Ala Tyr Lys Phe Val
 385 390 395 400
 Ser Arg Ser Glu Met Glu Ala Asp Ile Lys Ala Gly Lys Tyr Leu Glu
 405 410 415
 His Gly Glu Tyr Glu Gly Asn Leu Tyr Gly Thr Lys Ile Asp Ser Ile
 420 425 430
 Leu Glu Val Val Gln Thr Gly Arg Thr Cys Ile Leu Asp Val Asn Pro
 435 440 445
 Gln Ala Leu Lys Val Leu Arg Thr Ser Glu Phe Met Pro Tyr Val Val
 450 455 460
 Phe Ile Ala Ala Pro Glu Leu Glu Thr Leu Arg Ala Met His Lys Ala

465 470 475 480
 Val Val Asp Ala Gly Ile Thr Thr Lys Leu Leu Thr Asp Ser Asp Leu
 485 490 495
 Lys Lys Thr Val Asp Glu Ser Ala Arg Ile Gln Arg Ala Tyr Asn His
 500 505 510
 Tyr Phe Asp Leu Ile Ile Ile Asn Asp Asn Leu Asp Lys Ala Phe Glu
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 Pro Ile Ser Trp Val Tyr
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<211> 1031

<212> DNA

<213> Homo sapiens

<400> 5229

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 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Glu Lys Asn Glu Glu Glu Lys Gln Leu His Arg Lys Arg Ala Val Ser
 50 55 60
 Gln Val Pro Pro Thr Val Leu Cys Arg Glu Pro Val Gly Glu Ala Lys
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 Trp Gly Glu Trp Gly Thr Ser Gly Gly Arg Pro Gln Gly Thr Ser Trp
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 Cys Gln Arg Met Val Asp
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<210> 5231
 <211> 845
 <212> DNA
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<210> 5232
 <211> 201
 <212> PRT
 <213> Homo sapiens

<400> 5232
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 35 40 45
 Pro Cys Ala Glu Pro Ala Ala Phe Gly Asp Thr Leu His Ile His Tyr
 50 55 60
 Thr Gly Ser Leu Val Asp Gly Arg Ile Ile Asp Thr Ser Leu Thr Arg
 65 70 75 80
 Asp Pro Leu Val Ile Glu Leu Gly Gln Lys Gln Val Ile Pro Gly Leu
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 Glu Gln Ser Leu Leu Asp Met Cys Val Gly Glu Lys Arg Arg Ala Ile
 100 105 110
 Ile Pro Ser His Leu Ala Tyr Gly Lys Arg Gly Phe Pro Pro Ser Val
 115 120 125
 Pro Ala Asp Ala Val Val Gln Tyr Asp Val Glu Leu Ile Ala Leu Ile
 130 135 140
 Arg Ala Asn Tyr Trp Leu Lys Leu Val Lys Gly Ile Leu Pro Leu Val
 145 150 155 160
 Gly Met Ala Met Val Pro Ala Leu Leu Gly Leu Ile Gly Tyr His Leu
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<210> 5233
 <211> 2801
 <212> DNA
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<211> 57

<212> PRT

<213> Homo sapiens

<400> 5234

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	20						25					30			
Ile	Ile	Ser	Lys	Glu	Thr	Pro	Pro	Pro	Pro	Arg	Leu	Ile	Phe	Lys	Lys
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<211> 3017

<212> DNA

<213> Homo sapiens

<400> 5235

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2700
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2760
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2820
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2880
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3017

<210> 5236

<211> 178

<212> PRT

<213> Homo sapiens

<400> 5236

Lys Thr Ile Val Leu Pro Pro Asn Trp Lys Thr Ala Arg Asp Pro Glu

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<210> 5237
<211> 1238
<212> DNA
<213> Homo sapiens
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4416

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 taccagtata ggtgggatat acatttatct tgcaggaaat tccccaagc tcagagtcca
 840
 gttccttcca taaaacaggc tggacaaatg accactatgt tagaccccca ggctcgactt
 900
 cagggggtcag tgttctgtc ccaaacccca cacagaatac tctgcctctg cttcatgtag
 960
 caaatgagca aaaactcagt atctatcaaa agtgtaaatt atatttcta tgcctagtaa
 1020
 ttcacttcat gtctaaaaat ttatctgata gaaacactag caccagtaca tacagaagca
 1080
 tggcaaggat gtttctggca gcacttttct aataataaaa gatttgaaac aaccttaagt
 1140
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 1238

<210> 5238

<211> 212

<212> PRT

<213> Homo sapiens

<400> 5238

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 20 25 30
 Leu Leu Gly Ile Tyr Ile Ile His Arg Ala Val Arg Asn Pro Asp Asp
 35 40 45
 Leu Glu Ala Arg Ser His Met His Leu Ala Ser Ala Phe Ala Gly Ile
 50 55 60
 Gly Phe Gly Asn Ala Gly Val His Leu Cys His Gly Met Ser Tyr Pro
 65 70 75 80
 Ile Ser Gly Leu Val Lys Met Tyr Lys Ala Lys Asp Tyr Asn Val Asp
 85 90 95
 His Pro Leu Val Pro His Gly Leu Ser Val Val Leu Thr Ser Pro Ala
 100 105 110
 Val Phe Thr Phe Thr Ala Gln Met Phe Pro Glu Arg His Leu Glu Met
 115 120 125
 Ala Glu Ile Leu Gly Ala Asp Thr Arg Thr Ala Arg Ile Gln Asp Ala
 130 135 140
 Gly Leu Val Leu Ala Asp Thr Leu Arg Lys Phe Leu Phe Asp Leu Asp
 145 150 155 160
 Val Asp Asp Gly Leu Ala Ala Val Gly Tyr Ser Lys Ala Asp Ile Pro
 165 170 175
 Ala Leu Val Lys Gly Thr Leu Pro Gln Glu Arg Val Thr Lys Leu Ala
 180 185 190
 Pro Arg Pro Gln Ser Glu Glu Asp Leu Ala Ala Leu Phe Glu Ala Ser
 195 200 205
 Met Lys Leu Tyr
 210

<210> 5239
<211> 2061
<212> DNA
<213> Homo sapiens

<400> 5239
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120
taaaaacaaa agaggtgagt gagaatcgtc acctttctgc tttccttcct cacttggcca
180
ggctctagta ctccaccttt gagctgccat gccaatagg ggaagtccaa aattaaaaat
240
acaaccggtg tagaagaaaa taaatgggga gtgaaataga agaaaagatg agggagggga
300
gtgctaatat ttactactaga gttttataga caactgtccc attccatccc aattccaatc
360
ctgaccaga aagtgatggt ggcaggtcca agagacagag attatgtgtc gggacacaga
420
cagcctccca tccccaaccg taatggattc aatttcaagt ccacagagtg gggaggaagg
480
ataggggtgg aaagtgagac actcattttc aaacaagtct cccttgagaa ttctgcctt
540
gaagtgcaga cagtatccaa gctccagggg ataggctgag gaccctgagg ctcagttccc
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aaatcatgtt gtcatttgga agttccaggc taaagttggt gccatcaggg ctctccagat
660
ttgggaggcc cccctaaccg ccgggcctct ggcctcagtt ccttgcatth ctggcaataa
720
aagaagtcgg ggacgttggg cttcttaatc ttagcacagg agaggtggat ccacgtccca
780
cacaggctgc actcaatcat gggccgcctt gcaaagggct ttcgacagta acatgtgate
840
agatcccatg agtcatcacc tgattctacc atgatgtcct cgtccatgac ccgcatctcg
900
ccttcaactg agctggcatc tccatcttgg cttgtttcag tgctgcccac ctcttgcct
960
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1080
tcttcttctt ctctctctc tctctctcc tcttcagagt ctgtatcact ggggggtgcc
1140
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1200
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1260
agcaccacaa agccagcccc agctcctggc cccaacttcc ggttctttcg gtccttcttt
1320
cgaggaggat gggagaggtc cccctgggaa aggggcacgg gggtaagagc agcagggggc
1380
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1440

tcaaagagag agtccttgag cttcatcttc tcaagcaagg tagcactgtc gggggcctgc
 1500
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 1560
 ctcttgatg actttgcttt cttaacaaaa gtctggatgg ttcgaagatc tgagggggcc
 1620
 gagtcccagc catcactgtc ggccgcactc tctcctcgca atggagagct ggagccagag
 1680
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 1740
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 1860
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 1920
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 2040
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 2061

<210> 5240

<211> 226

<212> PRT

<213> Homo sapiens

<400> 5240

Met	Met	Ser	Ser	Ser	Met	Thr	Arg	Ile	Ser	Pro	Ser	Leu	Glu	Leu	Ala
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Ser	Pro	Ser	Trp	Leu	Val	Ser	Val	Leu	Pro	Thr	Ser	Leu	Leu	Ser	Leu
			20					25					30		
Ser	Ala	Gly	Gly	Thr	Pro	Ser	Gly	Cys	Thr	Val	Ala	Gly	Gly	Leu	Gly
		35					40					45			
Ala	Ser	Gly	Gly	Val	Gly	Ser	Thr	Gly	Thr	Gly	Ala	Ser	Pro	Pro	Thr
	50					55					60				
Thr	Val	Ala	Ile	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser
65					70					75				80	
Ser	Ser	Glu	Ser	Val	Ser	Leu	Gly	Gly	Ala	Trp	Gly	Gly	Pro	Gly	Gly
				85					90					95	
Gly	Ser	Leu	Ser	Pro	Arg	Ser	Ala	Phe	Phe	Asn	Phe	Arg	Phe	Leu	Leu
		100						105					110		
Phe	Leu	Ile	Arg	Asp	Leu	Phe	Ser	Pro	Ser	Pro	Gly	Val	Gly	Arg	Gly
		115					120					125			
Leu	Arg	Ser	Thr	Pro	Lys	Pro	Ala	Pro	Ala	Pro	Gly	Pro	Asn	Phe	Arg
		130					135				140				
Phe	Phe	Arg	Ser	Phe	Phe	Arg	Gly	Gly	Trp	Glu	Arg	Ser	Pro	Trp	Glu
145					150					155				160	
Arg	Gly	Thr	Gly	Val	Arg	Ala	Ala	Gly	Gly	Arg	Glu	Val	Cys	Val	Arg
				165					170					175	
Asp	Val	Gly	Asp	Lys	Gly	Asp	Ala	Thr	Leu	Gly	Pro	Ser	Arg	Ser	Lys
				180				185					190		
Arg	Glu	Ser	Leu	Ser	Phe	Ile	Phe	Ser	Ser	Lys	Val	Ala	Leu	Ser	Gly

195 200 205
 Ala Cys Arg Arg Glu Lys Val Asp Leu Gly Gly Pro Gly Trp Val Gly
 210 215 220
 Pro Ala
 225

<210> 5241
 <211> 461
 <212> DNA
 <213> Homo sapiens

<400> 5241
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 120
 cccaggetg atccggagcc ctcttcatcc ccgtccaggg ccgtttgcac tgctcccgcc
 180
 atcggcacac cttgttcttg ttgtgctggg acggcagcgc cccgtgaggt cagagggttg
 240
 ctgtcacatc tgccaccagc tgtggtctcc tggagatttc agtggttcgg tgcttcgctt
 300
 ctcacctggc cagctctgag ttcagcctct cgctgtggg gacccctgca tcctggcgcc
 360
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 420
 ctgagccagg cccgcccgtg gtgccgggag ttcccacgcg g
 461

<210> 5242
 <211> 146
 <212> PRT
 <213> Homo sapiens

<400> 5242
 Met Asp Ala Phe Ile Thr Phe Val Pro Leu Arg Ala Ser Pro Ser Ile
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 Cys Arg Gly Cys Thr His Phe Gln Gly Met Thr Ala Gly Pro His Ser
 20 25 30
 Glu Pro Gln Ala Asp Pro Glu Pro Ser Ser Ser Pro Ser Arg Ala Val
 35 40 45
 Cys Thr Ala Pro Gly Ile Gly Thr Pro Cys Ser Gly Cys Ala Gly Thr
 50 55 60
 Ala Ala Pro Arg Glu Val Arg Gly Leu Leu Ser His Leu Pro Pro Ser
 65 70 75 80
 Val Val Ser Trp Arg Phe Gln Trp Phe Gly Ala Ser Leu Leu Thr Trp
 85 90 95
 Pro Ala Leu Ser Ser Ala Ser Arg Leu Trp Gly Pro Leu His Pro Gly
 100 105 110
 Gly Arg Arg Arg Arg Lys Lys Pro Pro Glu Val Ala Arg Asn Pro Val
 115 120 125
 Ala Gly Glu Val Gly Leu Ser Gln Ala Arg Pro Leu Cys Arg Glu Phe
 130 135 140
 Pro Arg

145

<210> 5243

<211> 344

<212> DNA

<213> Homo sapiens

<400> 5243

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ngaattcctt gcattctctt ctgggccaaa agaataatga ttaaatttaa gaatcaaacc
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tggctggacc ttacagacga gccatttggg cagaaggtaa ctgtggaccc tgacaactca
120
aattgcagtg aagaaagtgc taggttgtct ttgaagcttg gtgatgctgg aaaccccaga
180
agtcttgcta taagattcat ccttaccat tacaacaagt tgtccatcca gagttgggtt
240
agtttgcgcc gagtcgagat catttccaac aattcaatcc aagcagtctt taacccaact
300
ggcgtatatg ctccctctgg ttactcctac cgctgccaac gcgt
344

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<210> 5244

<211> 114

<212> PRT

<213> Homo sapiens

<400> 5244

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Lys Asn Gln Thr Trp Leu Asp Leu Thr Asp Glu Pro Phe Gly Gln Lys
          20          25          30
Val Thr Val Asp Pro Asp Asn Ser Asn Cys Ser Glu Glu Ser Ala Arg
          35          40          45
Leu Ser Leu Lys Leu Gly Asp Ala Gly Asn Pro Arg Ser Leu Ala Ile
          50          55          60
Arg Phe Ile Leu Thr Asn Tyr Asn Lys Leu Ser Ile Gln Ser Trp Phe
65          70          75          80
Ser Leu Arg Arg Val Glu Ile Ile Ser Asn Asn Ser Ile Gln Ala Val
          85          90          95
Phe Asn Pro Thr Gly Val Tyr Ala Pro Ser Gly Tyr Ser Tyr Arg Cys
          100         105         110
Gln Arg

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<210> 5245

<211> 483

<212> DNA

<213> Homo sapiens

<400> 5245

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nngccatgga aacgaaagcg gccaagtaga gctccgtcct gacgcgccgc ctcccgtggg
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ctccggccgg ctaagccgcg gcggacaact atgctgaaag ccaagatcct cttcgtgggg
120

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ccttgcgaga gtggaaaaac tgttttgGCC aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caaccaagG agtgagggtt gagtcttgct ggccggccct gatgaaggat
 240
 gctcatggag tggatgatcgt cttcaatgct gacatcccaa gccaccggaa ggaaatggag
 300
 atgtggtatt cctgctttgt ccaacagccg tccttacagg acacacagtG tatgctaatt
 360
 gcacaccaca aaccaggctc tggagatgat aaaggaagcc tgtctttgtc gccacccttg
 420
 aacaagctga agctggtgca ctcaaacctg gaagatgacc ctgaggagat ccggatggaa
 480
 ttc
 483

<210> 5246

<211> 131

<212> PRT

<213> Homo sapiens

<400> 5246

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met
			35				40					45			
Lys	Asp	Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser
		50				55				60					
His	Arg	Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro
65					70				75					80	
Ser	Leu	Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly
			85					90						95	
Ser	Gly	Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys
			100				105						110		
Leu	Lys	Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg
		115					120					125			
Met	Glu	Phe													
		130													

<210> 5247

<211> 1004

<212> DNA

<213> Homo sapiens

<400> 5247

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 120
 ccttgcgaga gtggaaaaac tgttttgGCC aactttctga cagaatcttc tgacatcact
 180
 gaatacagcc caaccaagG agtgaggatc ctagaatttg agaaccgca tgttaccagc
 240

aacaacaaag gcacgggctg tgaattcgag ctatgggact gtggtggcga tgctaagttt
300
gagtcctgct ggccggccct gatgaaggat gctcatggag tggatgatcgt cttcaatgct
360
gacatcccaa gccaccggaa ggaaatggag atgtggtatt cctgctttgt ccaacagccg
420
tccttacagg acacacagtg tatgctaatt gcacaccaca aaccaggctc tggagatgat
480
aaaggaagcc tgtctttgtc gccacccttg aacaagctga agctgggtgca ctcaaacctg
540
gaagatgacc ctgaggagat ccggatggaa ttcataaagt atttaaaaag cataatcaac
600
tccatgtctg agagcagaga caggaggagg atgtcaatta tgacctagcc agccttcacc
660
tgggactgcc acatccccag tgaaatcagc atgtttctcg gtgcagatct gaaatcacat
720
ccagctcctg atgttttctt ctccctctga ctgcagagga agtggttcta cctgcaggaa
780
ggcacctgtc acacagggcg ttcactcaga ccactctgtc tctgccctga gttcagttga
840
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900
tggagggatt taccacctca catatgtcca gttaaacagt ttgtggactt gtaaccgtcg
960
cagcccaatg atacaacagt agtttaatca cgtgaaaaaa aaaa
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<210> 5248

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5248

Met	Leu	Lys	Ala	Lys	Ile	Leu	Phe	Val	Gly	Pro	Cys	Glu	Ser	Gly	Lys
1				5					10					15	
Thr	Val	Leu	Ala	Asn	Phe	Leu	Thr	Glu	Ser	Ser	Asp	Ile	Thr	Glu	Tyr
			20					25					30		
Ser	Pro	Thr	Gln	Gly	Val	Arg	Ile	Leu	Glu	Phe	Glu	Asn	Pro	His	Val
		35				40					45				
Thr	Ser	Asn	Asn	Lys	Gly	Thr	Gly	Cys	Glu	Phe	Glu	Leu	Trp	Asp	Cys
	50				55					60					
Gly	Gly	Asp	Ala	Lys	Phe	Glu	Ser	Cys	Trp	Pro	Ala	Leu	Met	Lys	Asp
65				70				75						80	
Ala	His	Gly	Val	Val	Ile	Val	Phe	Asn	Ala	Asp	Ile	Pro	Ser	His	Arg
			85					90						95	
Lys	Glu	Met	Glu	Met	Trp	Tyr	Ser	Cys	Phe	Val	Gln	Gln	Pro	Ser	Leu
			100					105					110		
Gln	Asp	Thr	Gln	Cys	Met	Leu	Ile	Ala	His	His	Lys	Pro	Gly	Ser	Gly
		115				120						125			
Asp	Asp	Lys	Gly	Ser	Leu	Ser	Leu	Ser	Pro	Pro	Leu	Asn	Lys	Leu	Lys
		130				135					140				
Leu	Val	His	Ser	Asn	Leu	Glu	Asp	Asp	Pro	Glu	Glu	Ile	Arg	Met	Glu
145				150						155				160	
Phe	Ile	Lys	Tyr	Leu	Lys	Ser	Ile	Ile	Asn	Ser	Met	Ser	Glu	Ser	Arg

165 170 175
 Asp Arg Glu Glu Met Ser Ile Met Thr
 180 185

<210> 5249
 <211> 653
 <212> DNA
 <213> Homo sapiens

<400> 5249
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 120
 gatgcagaga cccagcagct gctgaagaca gcactcaaag atccgggtgc tgtggacttg
 180
 gagaaagtgg ccaatgtgat tgtggacat tctctgcagg actgtgtgtt cagcaaggaa
 240
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 300
 ttcagactg gactcctcaa ccggctgcag caggagtacc aggctcggga gcagctgcga
 360
 gcacgctccc tgcagggctg ggtctgctat gtcaccttta tctgcaacat ctttgactac
 420
 ctgagggtga acaacatgcc catgatggcc ctggtgaacc ctgtctatga ctgcctcttc
 480
 cggctggccc agccagacag tttgagcaag gaggaggagg tggactgttt ggtgctgcag
 540
 ctgcaccggg ttggggagca gctggagaaa atgaatgggc agcgcatgga tgagctcttt
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 653

<210> 5250
 <211> 217
 <212> PRT
 <213> Homo sapiens

<400> 5250
 Xaa Arg Val Arg Ala Thr Gly Pro Ala Gly Ala Val Leu Ile Pro Ser
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 Pro Val Lys Ser Tyr Arg Gly Trp Leu Val Met Gly Glu Pro Ser Arg
 20 25 30
 Glu Glu Tyr Lys Ile Gln Ser Phe Asp Ala Glu Thr Gln Gln Leu Leu
 35 40 45
 Lys Thr Ala Leu Lys Asp Pro Gly Ala Val Asp Leu Glu Lys Val Ala
 50 55 60
 Asn Val Ile Val Asp His Ser Leu Gln Asp Cys Val Phe Ser Lys Glu
 65 70 75 80
 Ala Gly Arg Met Cys Tyr Ala Ile Ile Gln Ala Glu Ser Lys Gln Ala
 85 90 95
 Gly Gln Ser Val Phe Arg Arg Gly Leu Leu Asn Arg Leu Gln Gln Glu
 100 105 110
 Tyr Gln Ala Arg Glu Gln Leu Arg Ala Arg Ser Leu Gln Gly Trp Val

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      115              120              125
Cys Tyr Val Thr Phe Ile Cys Asn Ile Phe Asp Tyr Leu Arg Val Asn
      130              135              140
Asn Met Pro Met Met Ala Leu Val Asn Pro Val Tyr Asp Cys Leu Phe
      145              150              155              160
Arg Leu Ala Gln Pro Asp Ser Leu Ser Lys Glu Glu Glu Val Asp Cys
      165              170              175
Leu Val Leu Gln Leu His Arg Val Gly Glu Gln Leu Glu Lys Met Asn
      180              185              190
Gly Gln Arg Met Asp Glu Leu Phe Val Leu Ile Arg Asp Gly Phe Leu
      195              200              205
Leu Pro Thr Gly Leu Ser Ser Leu Ala
      210              215

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<210> 5251
 <211> 372
 <212> DNA
 <213> Homo sapiens

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<400> 5251
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caccacagcg ggacggcact tcattatgac gatgtcccg tgcacacagg ctccgggggaa
120
ccggaagacg gctttctctgc tttctgcagc agaagcttgg gagaagaagg ggcttttgaa
180
aaccacaggcc tgtacgataa ctggccgcct ccgcacatct ttgcccgcta ctctctgct
240
gacagaaagg cctctaggct gtctgctgac aagctgtcct ctaaccatta caaataccct
300
gcctctgctc agtctgtcac taatacctct tctgtgggga gggcgctctc cgggctcaac
360
tcgcagcctc ag
372

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<210> 5252
 <211> 124
 <212> PRT
 <213> Homo sapiens

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<400> 5252
Met Asn Arg Arg Val Ile Ser Ala Asn Pro Tyr Leu Gly Gly Thr Ser
  1              5              10              15
Asn Gly Tyr Ala His Pro Ser Gly Thr Ala Leu His Tyr Asp Asp Val
      20              25              30
Pro Cys Ile Asn Gly Ser Gly Glu Pro Glu Asp Gly Phe Pro Ala Phe
      35              40              45
Cys Ser Arg Ser Leu Gly Glu Glu Gly Ala Phe Glu Asn Pro Gly Leu
      50              55              60
Tyr Asp Asn Trp Pro Pro Pro His Ile Phe Ala Arg Tyr Ser Pro Ala
      65              70              75              80
Asp Arg Lys Ala Ser Arg Leu Ser Ala Asp Lys Leu Ser Ser Asn His
      85              90              95
Tyr Lys Tyr Pro Ala Ser Ala Gln Ser Val Thr Asn Thr Ser Ser Val

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100 105 110
 Gly Arg Ala Ser Leu Gly Leu Asn Ser Gln Pro Gln
 115 120

<210> 5253
 <211> 898
 <212> DNA
 <213> Homo sapiens

<400> 5253
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 120
 tcattcfaat gccatccttg tggagagcca cagtgtagt caaggttcca tccaattcac
 180
 tgtggacaag gtcttgagc aacatcacca ggctgccaag gctcagcaga aactacaggc
 240
 ctactctca gtggctgtga actccatcat gattattctg actggaagca ctaggagcag
 300
 cttccgaaag atgtgtctcc agacccttca agcagctgac acacaagagt tcaggaccaa
 360
 actgcacaaa gtatttcgtg agatcaccca acaccaattt cttcaccact gctcatgtga
 420
 ggtgaagcag cagctaacc tagaaaaaaa ggactcagcc cagggcactg aggacgcacc
 480
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<210> 5254
 <211> 56
 <212> PRT
 <213> Homo sapiens

<400> 5254
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 Leu Cys Gln Gly Pro Glu Pro Val Arg Gly Arg Pro Ala Pro Pro Gly
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 Ser His Arg Gly Pro Pro His Ser

50

55

<210> 5255

<211> 1410

<212> DNA

<213> Homo sapiens

<400> 5255

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120
tgtcaacaaa cctcaccact ggatcctgac aaccacaatg cctggatcct ggggccccca
180
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240
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catttcaagc actacgcctt ccaccccag gcactggatc ccagattccc aagccttcac
360
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420
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<210> 5256
<211> 95
<212> PRT
<213> Homo sapiens

<400> 5256
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Pro Pro Ser Pro Val Gly Lys Leu Phe Pro Gly Thr Thr Pro Leu Pro
35 40 45
Ala Ser Pro His Phe Thr Ala Ser Ser Ile Pro Leu Pro Pro Ser Arg
50 55 60
Arg Ile Val Pro Arg Ala Val Phe Leu Gln Gly Val Arg Gly Ile Thr
65 70 75 80
His Ser Trp Arg Leu Ala Arg Arg Gln Ser Glu Ala Arg Asp Thr
85 90 95

<210> 5257
<211> 1366
<212> DNA
<213> Homo sapiens

<400> 5257
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240
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300
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360
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420
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<210> 5258

<211> 375

<212> PRT

<213> Homo sapiens

<400> 5258

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			20					25					30		
Ser	Tyr	Ser	Ala	Ser	Ala	Glu	Pro	Ala	Arg	Val	Arg	Gly	Leu	Val	Tyr
		35					40					45			
Gly	His	His	Gly	Asp	Pro	Ala	Lys	Val	Val	Glu	Leu	Lys	Asn	Leu	Glu
	50					55					60				
Leu	Ala	Ala	Val	Arg	Gly	Ser	Asp	Val	Arg	Val	Lys	Met	Leu	Ala	Ala
65					70					75				80	
Pro	Ile	Asn	Pro	Ser	Asp	Ile	Asn	Met	Ile	Gln	Gly	Asn	Tyr	Gly	Leu
			85					90					95		
Leu	Pro	Glu	Leu	Pro	Ala	Val	Gly	Gly	Asn	Glu	Gly	Val	Ala	Gln	Val
		100						105					110		
Val	Ala	Val	Gly	Ser	Asn	Val	Thr	Gly	Leu	Lys	Pro	Gly	Asp	Trp	Val
		115					120					125			
Ile	Pro	Ala	Asn	Ala	Gly	Leu	Asp	Ser	Gly	Thr	Trp	Arg	Thr	Glu	Ala
	130					135					140				
Val	Phe	Ser	Glu	Glu	Ala	Leu	Ile	Gln	Val	Pro	Ser	Asp	Ile	Pro	Leu
145					150					155				160	
Gln	Ser	Ala	Ala	Thr	Leu	Gly	Val	Asn	Pro	Cys	Thr	Ala	Tyr	Arg	Met
			165					170					175		
Leu	Met	Asp	Phe	Glu	Gln	Leu	Gln	Pro	Gly	Asp	Ser	Val	Ile	Gln	Asn
		180						185					190		
Ala	Ser	Asn	Ser	Gly	Val	Gly	Gln	Ala	Val	Ile	Gln	Ile	Ala	Ala	Ala
	195						200					205			
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Lys Leu Ser Asp Arg Leu Lys Ser Leu Gly Ala Glu His Val Ile Thr
225              230              235              240
Glu Glu Glu Leu Arg Arg Pro Glu Met Lys Asn Phe Phe Lys Asp Met
      245              250              255
Pro Gln Pro Arg Leu Ala Leu Asn Cys Val Gly Gly Lys Ser Ser Thr
      260              265              270
Glu Leu Leu Arg Gln Leu Ala Arg Gly Gly Thr Met Val Thr Tyr Gly
      275              280              285
Gly Met Ala Lys Gln Pro Val Val Ala Ser Val Ser Leu Leu Ile Phe
      290              295              300
Lys Asp Leu Lys Leu Arg Gly Phe Trp Leu Ser Gln Trp Lys Lys Asp
305              310              315              320
His Ser Pro Asp Gln Phe Lys Glu Leu Ile Leu Thr Leu Cys Asp Leu
      325              330              335
Ile Arg Arg Gly Gln Leu Thr Ala Pro Ala Cys Ser Gln Val Pro Leu
      340              345              350
Gln Asp Tyr Gln Ser Ala Leu Glu Ala Ser Met Lys Pro Phe Ile Ser
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Ser Lys Gln Ile Leu Thr Met
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<210> 5259
 <211> 306
 <212> DNA
 <213> Homo sapiens

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120
actttcccaa acctgggcct tctgctagag aagttgcaga aatcagccac tttgccaagc
180
accacagtcc aaccaagccc tgatgattat gggactgagc tattgagacg ctatcatgaa
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306

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<210> 5260
 <211> 83
 <212> PRT
 <213> Homo sapiens

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<400> 5260
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Gln Ala Val Lys Thr Thr Phe Pro Asn Leu Gly Leu Leu Leu Glu Lys
20          25          30
Leu Gln Lys Ser Ala Thr Leu Pro Ser Thr Thr Val Gln Pro Ser Pro
35          40          45
Asp Asp Tyr Gly Thr Glu Leu Leu Arg Arg Tyr His Glu Asn Leu Ser

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Glu Ile Phe Thr Asp Asn Gln Ile Leu Leu Lys Met Ile Ser His Met		
65	70	75
Thr Ser Leu		80

<210> 5261

<211> 2394

<212> DNA

<213> Homo sapiens

<400> 5261

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240
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1260

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<210> 5262

<211> 275

<212> PRT

<213> Homo sapiens

<400> 5262

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			20					25					30		
Gly	Lys	Gly	Arg	Phe	Leu	Val	Arg	Ile	Cys	Phe	Gln	Gly	Asp	Glu	Gly
			35				40						45		
Ala	Cys	Pro	Thr	Arg	Asp	Phe	Val	Val	Gly	Ala	Leu	Ile	Leu	Arg	Ser
			50				55						60		

Ile Gly Met Asp Pro Ser Asp Ile Tyr Ala Val Ile Gln Ile Pro Gly
 70 75 80
 Ser Arg Glu Phe Asp Val Ser Phe Arg Ser Ala Glu Lys Leu Ala Leu
 85 90 95
 Phe Leu Arg Val Tyr Glu Glu Lys Arg Glu Gln Glu Asp Cys Trp Glu
 100 105 110
 Asn Phe Val Val Leu Gly Arg Ser Lys Ser Ser Leu Lys Thr Leu Phe
 115 120 125
 Ile Leu Phe Arg Asn Glu Thr Val Asp Val Glu Asp Ile Val Thr Trp
 130 135 140
 Leu Lys Arg His Cys Asp Val Leu Ala Val Pro Val Lys Val Thr Asp
 145 150 155 160
 Arg Phe Gly Ile Trp Thr Gly Glu Tyr Lys Cys Glu Ile Glu Leu Arg
 165 170 175
 Gln Gly Glu Gly Gly Val Arg His Leu Pro Gly Ala Phe Phe Leu Gly
 180 185 190
 Ala Glu Arg Gly Tyr Ser Trp Tyr Lys Gly Gln Pro Lys Thr Cys Phe
 195 200 205
 Lys Cys Gly Ser Arg Thr His Met Ser Gly Ser Cys Thr Gln Asp Arg
 210 215 220
 Cys Phe Arg Cys Gly Glu Glu Gly His Leu Ser Pro Tyr Cys Arg Lys
 225 230 235 240
 Gly Ile Val Cys Asn Leu Cys Gly Lys Arg Gly His Ala Phe Ala Gln
 245 250 255
 Cys Pro Lys Ala Val His Asn Ser Val Ala Ala Gln Leu Thr Gly Val
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 Ala Gly His
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<210> 5263

<211> 319

<212> DNA

<213> Homo sapiens

<400> 5263

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319

<210> 5264

<211> 105

<212> PRT

<213> Homo sapiens

<400> 5264

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Lys Ile Gln Ile Ser His Ser Trp Glu Gly Leu Lys Leu Val Lys
      20           25           30
Trp His Phe Asn Ile Asn Gln Lys Arg Phe Ser Lys Ala Gln Pro Thr
      35           40           45
Cys Phe Leu Leu Ile Leu Pro Pro Cys Gln Lys Ile Met Cys Ile Tyr
      50           55           60
Phe Gln Leu Leu Leu Met Glu Thr Thr Ala Met Leu Asp Leu Leu Val
65           70           75           80
Ile Arg Gln Leu Lys Ser Ala Leu Ser Gln Thr Leu Leu Cys His Leu
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Leu Ile Leu Val Leu Ile Cys Ser Arg
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<210> 5265
 <211> 3203
 <212> DNA
 <213> Homo sapiens

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960

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<210> 5266
 <211> 853
 <212> PRT
 <213> Homo sapiens

<400> 5266
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 35 40 45
 Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg Gly Pro
 50 55 60
 Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly Gly Glu
 65 70 75 80
 Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr Thr Thr
 85 90 95
 Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly Glu Gly
 100 105 110
 Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr Leu Gly
 115 120 125
 Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr Gly Ile
 130 135 140
 Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Leu Leu
 145 150 155 160
 Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu Leu Ala
 165 170 175
 Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn
 180 185 190
 Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly

195	200	205
Phe Arg Ile His Tyr Gln Ala Tyr Leu Leu Ser Cys Gly Phe Pro Pro		
210	215	220
Arg Pro Ala His Gly Asp Val Ser Val Thr Asp Leu His Pro Gly Gly		
225	230	235
Thr Ala Thr Phe His Cys Asp Ser Gly Tyr Gln Leu Gln Gly Glu Glu		
245	250	255
Thr Leu Ile Cys Leu Asn Gly Thr Arg Pro Ser Trp Asn Gly Glu Thr		
260	265	270
Pro Ser Cys Met Ala Ser Cys Gly Gly Thr Ile His Asn Ala Thr Leu		
275	280	285
Gly Arg Ile Val Ser Pro Glu Pro Gly Gly Ala Val Gly Pro Asn Leu		
290	295	300
Thr Cys Arg Trp Val Ile Glu Ala Ala Glu Gly Arg Arg Leu His Leu		
305	310	315
His Phe Glu Arg Val Ser Leu Asp Glu Asp Asn Asp Arg Leu Met Val		
325	330	335
Arg Ser Gly Gly Ser Pro Leu Ser Pro Val Ile Tyr Asp Ser Asp Met		
340	345	350
Asp Asp Val Pro Glu Arg Gly Leu Ile Ser Asp Ala Gln Ser Leu Tyr		
355	360	365
Val Glu Leu Leu Ser Glu Thr Pro Ala Asn Pro Leu Leu Leu Ser Leu		
370	375	380
Arg Phe Glu Ala Phe Glu Glu Asp Arg Cys Phe Ala Pro Phe Leu Ala		
385	390	395
His Gly Asn Val Thr Thr Thr Asp Pro Glu Tyr Arg Pro Gly Ala Leu		
405	410	415
Ala Thr Phe Ser Cys Leu Pro Gly Tyr Ala Leu Glu Pro Pro Gly Pro		
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Pro Asn Ala Ile Glu Cys Val Asp Pro Thr Glu Pro His Trp Asn Asp		
435	440	445
Thr Glu Pro Ala Cys Lys Ala Met Cys Gly Gly Glu Leu Ser Glu Pro		
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Ala Gly Val Val Leu Ser Pro Asp Trp Pro Gln Ser Tyr Ser Pro Gly		
465	470	475
Gln Asp Cys Val Trp Gly Val His Val Gln Glu Glu Lys Arg Ile Leu		
485	490	495
Leu Gln Val Glu Ile Leu Asn Val Arg Glu Gly Asp Met Leu Thr Leu		
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Phe Asp Gly Asp Gly Pro Ser Ala Arg Val Leu Ala Gln Leu Arg Gly		
515	520	525
Pro Gln Pro Arg Arg Arg Leu Leu Ser Ser Gly Pro Asp Leu Thr Leu		
530	535	540
Gln Phe Gln Ala Pro Pro Gly Pro Pro Asn Pro Gly Leu Gly Gln Gly		
545	550	555
Phe Val Leu His Phe Lys Glu Val Pro Arg Asn Asp Thr Cys Pro Glu		
565	570	575
Leu Pro Pro Pro Glu Trp Gly Trp Arg Thr Ala Ser His Gly Asp Leu		
580	585	590
Ile Arg Gly Thr Val Leu Thr Tyr Gln Cys Glu Pro Gly Tyr Glu Leu		
595	600	605
Leu Gly Ser Asp Ile Leu Thr Cys Gln Trp Asp Leu Ser Trp Ser Ala		
610	615	620
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<211> 885
<212> DNA
<213> Homo sapiens
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240
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360
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420
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540

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 780
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<210> 5268

<211> 279

<212> PRT

<213> Homo sapiens

<400> 5268

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		20						25					30		
Tyr	Ala	Pro	Gln	Thr	Tyr	Ala	Ala	Ile	Pro	Ser	Leu	His	Phe	Pro	Ala
		35					40					45			
Thr	Lys	Gly	His	Leu	Ser	Asn	Arg	Ala	Ile	Ile	Arg	Ala	Pro	Ser	Val
	50					55					60				
Arg	Glu	Ile	Tyr	Met	Asn	Val	Pro	Val	Gly	Ala	Ala	Gly	Val	Arg	Gly
65					70					75				80	
Leu	Gly	Gly	Arg	Gly	Tyr	Leu	Ala	Tyr	Thr	Gly	Leu	Gly	Arg	Gly	Tyr
			85						90					95	
Gln	Val	Lys	Gly	Asp	Lys	Arg	Glu	Asp	Lys	Leu	Tyr	Asp	Ile	Leu	Pro
		100						105					110		
Gly	Met	Glu	Leu	Thr	Pro	Met	Asn	Pro	Val	Thr	Leu	Lys	Pro	Gln	Gly
		115					120					125			
Ile	Lys	Leu	Ala	Pro	Gln	Ile	Leu	Glu	Glu	Ile	Cys	Gln	Lys	Asn	Asn
	130					135					140				
Trp	Gly	Gln	Pro	Val	Tyr	Gln	Leu	His	Ser	Ala	Ile	Gly	Gln	Asp	Gln
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Arg	Gln	Leu	Phe	Leu	Tyr	Lys	Ile	Thr	Ile	Pro	Ala	Leu	Ala	Ser	Gln
			165					170						175	
Asn	Pro	Ala	Ile	His	Pro	Phe	Thr	Pro	Pro	Lys	Leu	Ser	Ala	Phe	Val
		180						185					190		
Asp	Glu	Ala	Lys	Thr	Tyr	Ala	Ala	Glu	Tyr	Thr	Leu	Gln	Thr	Leu	Gly
	195						200					205			
Ile	Pro	Thr	Asp	Gly	Gly	Asp	Gly	Thr	Met	Ala	Thr	Ala	Ala	Ala	Ala
	210					215					220				
Ala	Thr	Ala	Phe	Pro	Gly	Tyr	Ala	Val	Pro	Asn	Ala	Thr	Ala	Pro	Val
225					230					235				240	
Ser	Ala	Ala	Gln	Leu	Lys	Gln	Ala	Val	Thr	Leu	Gly	Gln	Asp	Leu	Ala
			245						250					255	
Ala	Tyr	Thr	Thr	Tyr	Glu	Val	Tyr	Pro	Thr	Phe	Ala	Val	Thr	Ala	Arg
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<210> 5269

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 5269

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<210> 5270

<211> 327

<212> PRT

<213> Homo sapiens

<400> 5270

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          20           25           30
Gln Pro Ile Ser Glu Glu Glu Ala Ile Gln Ile Ile Ala Asp Pro Pro
          35           40           45
Leu Pro Pro Ala Ser Phe Thr Leu Arg Asp Tyr Val Asp His Ser Glu
          50           55           60
Thr Leu Gln Lys Leu Val Leu Leu Gly Val Asp Leu Ser Lys Ile Glu
          65           70           75           80
Lys His Pro Glu Ala Ala Asn Leu Leu Leu Arg Leu Asp Phe Glu Lys
          85           90           95
Asp Ile Lys Gln Met Leu Leu Phe Leu Lys Asp Val Gly Ile Glu Asp
          100          105          110
Asn Gln Leu Gly Ala Phe Leu Thr Lys Asn His Ala Ile Phe Ser Glu
          115          120          125
Asp Leu Glu Asn Leu Lys Thr Arg Val Ala Tyr Leu His Ser Lys Asn
          130          135          140
Phe Ser Lys Ala Asp Val Ala Gln Met Val Arg Lys Ala Pro Phe Leu
          145          150          155          160
Leu Asn Phe Ser Val Glu Arg Leu Asp Asn Arg Leu Gly Phe Phe Gln
          165          170          175
Lys Glu Leu Glu Leu Ser Val Lys Lys Thr Arg Asp Leu Val Val Arg
          180          185          190
Leu Pro Arg Leu Leu Thr Gly Ser Leu Glu Pro Val Lys Glu Asn Met
          195          200          205
Lys Val Tyr Arg Leu Glu Leu Gly Phe Lys His Asn Glu Ile Gln His
          210          215          220
Met Ile Thr Arg Ile Pro Lys Met Leu Thr Ala Asn Lys Met Lys Leu
          225          230          235          240
Thr Glu Thr Phe Asp Phe Val His Asn Val Met Ser Ile Pro His His
          245          250          255
Ile Ile Val Lys Phe Pro Gln Val Phe Asn Thr Arg Leu Phe Lys Val
          260          265          270
Lys Glu Arg His Leu Phe Leu Thr Tyr Leu Gly Arg Ala Gln Tyr Asp
          275          280          285
Pro Ala Lys Pro Asn Tyr Ile Ser Leu Asp Lys Leu Val Ser Ile Pro
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<210> 5271

<211> 1185

<212> DNA

<213> Homo sapiens

<400> 5271

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120

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<211> 385

<212> PRT

<213> Homo sapiens

<400> 5272

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			20					25					30		
Glu	Cys	Gly	Asn	Val	Thr	Gly	Ala	Ser	Ser	Pro	Ser	Arg	Thr	Pro	Phe
		35					40					45			
Gln	Asn	Pro	Ser	Leu	Leu	Leu	Val	His	Lys	Gln	Lys	Leu	Ala	Lys	Trp
		50				55					60				
Val	Ala	Ile	Gln	Ser	Val	Ser	Ala	Trp	Pro	Glu	Lys	Arg	Gly	Glu	Ile
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Arg	Arg	Met	Met	Glu	Val	Ala	Ala	Ala	Asp	Val	Lys	Gln	Leu	Gly	Gly

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<211> 4580
<212> DNA
<213> Homo sapiens
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240
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 3900
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 3960
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 4020
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 4080
 aaaaaagtac tgatcttcaa tatgaagaca tgagcttttc tcgcaggaaa ttttcttttt
 4140
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 4200
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 4260
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 4320
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 4380
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 4440
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 4560
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 4580

<210> 5274

<211> 185

<212> PRT

<213> Homo sapiens

<400> 5274

Met Ser Gly Ser Phe Glu Leu Ser Val Gln Asp Leu Asn Asp Leu Leu
 1 5 10 15
 Ser Asp Gly Ser Gly Cys Tyr Ser Leu Pro Ser Gln Pro Cys Asn Glu
 20 25 30
 Val Thr Pro Arg Ile Tyr Val Gly Asn Ala Ser Val Ala Gln Asp Ile
 35 40 45
 Pro Lys Leu Gln Lys Leu Gly Ile Thr His Val Leu Asn Ala Ala Glu
 50 55 60
 Gly Arg Ser Phe Met His Val Asn Thr Asn Ala Asn Phe Tyr Lys Asp

65		70		75		80									
Ser	Gly	Ile	Thr	Tyr	Leu	Gly	Ile	Lys	Ala	Asn	Asp	Thr	Gln	Glu	Phe
		85						90						95	
Asn	Leu	Ser	Ala	Tyr	Phe	Glu	Arg	Ala	Ala	Asp	Phe	Ile	Asp	Gln	Ala
		100						105					110		
Leu	Ala	Gln	Lys	Asn	Gly	Arg	Val	Leu	Val	His	Cys	Arg	Glu	Gly	Tyr
		115					120					125			
Ser	Arg	Ser	Pro	Thr	Leu	Val	Ile	Ala	Tyr	Leu	Met	Met	Arg	Gln	Lys
		130				135					140				
Met	Asp	Val	Lys	Ser	Ala	Leu	Ser	Ile	Val	Arg	Gln	Asn	Arg	Glu	Ile
		145			150					155				160	
Gly	Pro	Asn	Asp	Gly	Phe	Leu	Ala	Gln	Leu	Cys	Gln	Leu	Asn	Asp	Arg
			165					170					175		
Leu	Ala	Lys	Glu	Gly	Lys	Leu	Lys	Pro							
		180						185							

<210> 5275

<211> 810

<212> DNA

<213> Homo sapiens

<400> 5275

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120
atgtcctgca tctaacgcgg tgtgaccccc gaagccgagc gagctccgga ggaatttcag
180
tatctgctac ggtaacttca tcagcccgcc aagatggcga tgcaagcggc caagagggcg
240
aacattcgac ttccacctga agtaaatcgg atattgtata taagaaattt gccatacaaa
300
atcacagctg aagaaatgta tgatatattt gggaaatatg gacctattcg tcaaatacaga
360
gtggggaaca cacctgaaac tagaggaaca gcttatgtgg tctatgagga catctttgat
420
gccaaagtat catgtgatca cctatcgga ttcaatgttt gtaacagata ccttgtggtt
480
ttgtactata atgccaacag ggcatttcag aagatggaca caaagaagaa ggaggaacag
540
ttgaagcttc tcaaggagaa atatggcatc aacacagatc caccaaaata aatgttttct
600
acattttcat ttggactaaa tcccacgaat gacaactacc accttttttt cctttttaat
660
taatactaaa tattgtgatt tcttatttga ggttcaaaat gacctgcttg aaactttgat
720
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780
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<210> 5276

<211> 125

<212> PRT

<213> Homo sapiens

<400> 5276

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Met Ala Met Gln Ala Ala Lys Arg Ala Asn Ile Arg Leu Pro Pro Glu
 1           5           10           15
Val Asn Arg Ile Leu Tyr Ile Arg Asn Leu Pro Tyr Lys Ile Thr Ala
 20           25           30
Glu Glu Met Tyr Asp Ile Phe Gly Lys Tyr Gly Pro Ile Arg Gln Ile
 35           40           45
Arg Val Gly Asn Thr Pro Glu Thr Arg Gly Thr Ala Tyr Val Val Tyr
 50           55           60
Glu Asp Ile Phe Asp Ala Lys Asn Ala Cys Asp His Leu Ser Gly Phe
 65           70           75           80
Asn Val Cys Asn Arg Tyr Leu Val Val Leu Tyr Tyr Asn Ala Asn Arg
 85           90           95
Ala Phe Gln Lys Met Asp Thr Lys Lys Glu Glu Gln Leu Lys Leu
100           105           110
Leu Lys Glu Lys Tyr Gly Ile Asn Thr Asp Pro Pro Lys
115           120           125

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<210> 5277

<211> 612

<212> DNA

<213> Homo sapiens

<400> 5277

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120
accctgtccc tgcccttcta catctcccag tgctggaccc tcggctccgt cctggcgctc
180
acctggaccg tctggcgctt cttcctgctg gacatcacat tgaggtacaa ggagaccg
240
tggcagaagt ggagaacaa ggatgaccag ggcagcaccc tcggcaacgg ggaccagcac
300
ccactggggc tggacgaaga cctgctgggg cctgggggtgg ccgagggcga gggagcacca
360
actccaaact gacctgggccc gtggctgcct cgtgagcctc ccagagccca ggctccgtg
420
gcctcctcct gtgtgagtcc caccaggagc cacgtgcccg gccttgccct caaggttttt
480
tgctttttct ctgtgcacct ggcgaggctg aaggcgaggg gtggaggagg cccagcaca
540
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600
tgtgtgtacg tg
612

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<210> 5278

<211> 123

<212> PRT

<213> Homo sapiens

<400> 5278

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Ile Tyr Asp Phe Met Asp Asp Pro Lys Pro His Lys Lys Leu Gly Pro
 1           5           10           15
Gln Ala Trp Leu Val Ala Ala Ile Thr Ala Thr Glu Leu Leu Ile Val
      20           25           30
Val Lys Tyr Asp Pro His Thr Leu Thr Leu Ser Leu Pro Phe Tyr Ile
      35           40           45
Ser Gln Cys Trp Thr Leu Gly Ser Val Leu Ala Leu Thr Trp Thr Val
      50           55           60
Trp Arg Phe Phe Leu Arg Asp Ile Thr Leu Arg Tyr Lys Glu Thr Arg
65           70           75           80
Trp Gln Lys Trp Gln Asn Lys Asp Asp Gln Gly Ser Thr Val Gly Asn
      85           90           95
Gly Asp Gln His Pro Leu Gly Leu Asp Glu Asp Leu Leu Gly Pro Gly
      100          105          110
Val Ala Glu Gly Glu Gly Ala Pro Thr Pro Asn
      115          120

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<210> 5279

<211> 1225

<212> DNA

<213> Homo sapiens

<400> 5279

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120
ctactcccta agctgattgc aggtggccac aaagtactca tcttctccca gatggtgcgc
180
tgccctcgaca tcctagaaga ttatttaatc cagagaagat acacctatga acgtattgat
240
gggcgagtag ggggaaacct gcgccaggct gccatcgacc gcttcagcaa gcctgactca
300
gaccgctttg tcttcttact gtgcaccaga gcgggaggcc tggggatcaa tctcacagct
360
gctgatacct gcatcatatt tgattctgac tggaaccac aaaatgactt gcaggctcag
420
gcccgatgtc accgcatagg ccagagcaaa gctgtgaagg tgtatcgctt catcactcga
480
aattcctacg agcgcgagat gtttgacaag gccagcctaa agctggggct ggacaaggct
540
gttcttcaga catcaaccga aaggcgcgca ccaatgggta cagcactctc aaaaatggag
600
gtggaggacc tactccggaa aggtgcttat ggagccttaa tggatgaaga agatgaaggc
660
tccaagtctt gtgaagaaga catagaccag attctgcaga ggcaacgca caccatcacc
720
atccagtctg aggggaaagg gtccactttt gccaggcta gctttgtggc ttcaggaaac
780
agaacagata tttccttaga tgatcctaac ttttggcaga aatgggctaa aatagctgaa
840
ctagacactg aagcaaagaa tgaaaaggaa agcttagtga tcgaccgacc tcgcgtgaga
900

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aagcagacca aacactacaa ctcgtttgag gaagacgagc tcatggagtt ttcagagtta
 960
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 1020
 tacctccgag cggagtgcct ccgggtagag aagaacctgc tcatctttgg ctggggccgg
 1080
 tggaaggaca tcctgactca tggccgattc aagtggcatc tgaacgagaa ggacatggag
 1140
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 1200
 aagagtttca tttgggaact gatca
 1225

<210> 5280

<211> 408

<212> PRT

<213> Homo sapiens

<400> 5280

Ile Asn Gly Ala Glu Glu Lys Ile Leu Glu Asp Phe Arg Lys Thr His
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 Ser Pro Asp Ala Pro Asp Phe Gln Leu Gln Ala Met Ile Gln Ala Ala
 20 25 30
 Gly Lys Leu Val Leu Ile Asp Lys Leu Leu Pro Lys Leu Ile Ala Gly
 35 40 45
 Gly His Lys Val Leu Ile Phe Ser Gln Met Val Arg Cys Leu Asp Ile
 50 55 60
 Leu Glu Asp Tyr Leu Ile Gln Arg Arg Tyr Thr Tyr Glu Arg Ile Asp
 65 70 75 80
 Gly Arg Val Arg Gly Asn Leu Arg Gln Ala Ala Ile Asp Arg Phe Ser
 85 90 95
 Lys Pro Asp Ser Asp Arg Phe Val Phe Leu Leu Cys Thr Arg Ala Gly
 100 105 110
 Gly Leu Gly Ile Asn Leu Thr Ala Ala Asp Thr Cys Ile Ile Phe Asp
 115 120 125
 Ser Asp Trp Asn Pro Gln Asn Asp Leu Gln Ala Gln Ala Arg Cys His
 130 135 140
 Arg Ile Gly Gln Ser Lys Ala Val Lys Val Tyr Arg Leu Ile Thr Arg
 145 150 155 160
 Asn Ser Tyr Glu Arg Glu Met Phe Asp Lys Ala Ser Leu Lys Leu Gly
 165 170 175
 Leu Asp Lys Ala Val Leu Gln Thr Ser Thr Glu Arg Ala Ala Pro Met
 180 185 190
 Gly Thr Ala Leu Ser Lys Met Glu Val Glu Asp Leu Leu Arg Lys Gly
 195 200 205
 Ala Tyr Gly Ala Leu Met Asp Glu Glu Asp Glu Gly Ser Lys Phe Cys
 210 215 220
 Glu Glu Asp Ile Asp Gln Ile Leu Gln Arg Arg Thr His Thr Ile Thr
 225 230 235 240
 Ile Gln Ser Glu Gly Lys Gly Ser Thr Phe Ala Lys Ala Ser Phe Val
 245 250 255
 Ala Ser Gly Asn Arg Thr Asp Ile Ser Leu Asp Asp Pro Asn Phe Trp
 260 265 270
 Gln Lys Trp Ala Lys Ile Ala Glu Leu Asp Thr Glu Ala Lys Asn Glu

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      275              280              285
Lys Glu Ser Leu Val Ile Asp Arg Pro Arg Val Arg Lys Gln Thr Lys
      290              295              300
His Tyr Asn Ser Phe Glu Glu Asp Glu Leu Met Glu Phe Ser Glu Leu
      305              310              315              320
Asp Ser Asp Ser Asp Glu Arg Pro Thr Arg Ser Arg Arg Leu Asn Asp
      325              330              335
Lys Ala Arg Arg Tyr Leu Arg Ala Glu Cys Phe Arg Val Glu Lys Asn
      340              345              350
Leu Leu Ile Phe Gly Trp Gly Arg Trp Lys Asp Ile Leu Thr His Gly
      355              360              365
Arg Phe Lys Trp His Leu Asn Glu Lys Asp Met Glu Met Ile Cys Arg
      370              375              380
Ala Leu Leu Val Tyr Cys Val Lys His Tyr Lys Gly Asp Glu Lys Ile
      385              390              395              400
Lys Ser Phe Ile Trp Glu Leu Ile
      405

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<210> 5281
 <211> 336
 <212> DNA
 <213> Homo sapiens

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<400> 5281
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120
aggcattcct ggtactcaca ggtctgacag ccacagttgg agacacagct atttcttcag
180
aagagaaaac acaacgcatg tcattaatga gacatcacat gggacaatca ttgtccaaag
240
aagttgcaca tgtcttcacc aaacctggag cagatcacga ttgggaaaac ctagagaaaag
300
acttgagatt gtcattaat ggggattatg aagaag
336

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<210> 5282
 <211> 91
 <212> PRT
 <213> Homo sapiens

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<400> 5282
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1          5          10          15
Tyr Arg Ala Gln Ala Phe Leu Val Leu Thr Gly Leu Thr Ala Thr Val
      20          25          30
Gly Asp Thr Ala Ile Ser Ser Glu Lys Thr Gln Arg Met Ser Leu
      35          40          45
Met Arg His His Met Gly Gln Ser Leu Ser Lys Glu Val Ala His Val
      50          55          60
Leu Thr Lys Pro Gly Ala Asp His Asp Trp Glu Asn Leu Glu Lys Asp
      65          70          75          80
Leu Arg Leu Leu Ile Asn Gly Asp Tyr Glu Glu

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85

90

<210> 5283
 <211> 1989
 <212> DNA
 <213> Homo sapiens

<400> 5283
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 120
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 180
 aagaggaatg gtttaattaa caccagaaac ttgatggccg agagcagaga tggctctggtg
 240
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 300
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 360
 cagtcaagtgg agtcccgcta ccggcccaac atcatcctct attcagaggg cgtgctgcgc
 420
 tcctgggggg acggtgtggc cgccgactgc tgcgagacca ccttcacga ggaccggtcg
 480
 cccaccaaag acagcctcga gtaccgggat gggaagttca ttgacctctc agctgatgac
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 780
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 900
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 1260
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 1320
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 1380

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 1560
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 1680
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 1740
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 1860
 cttcatgctg cttaagttac cagatgaatg ctgagaaata agtaatcaca gacattttaa
 1920
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 1980
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 1989

<210> 5284

<211> 258

<212> PRT

<213> Homo sapiens

<400> 5284

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			20					25					30		
Ala	Glu	Ser	Arg	Asp	Gly	Leu	Val	Ser	Val	Tyr	Pro	Ala	Pro	Gln	Tyr
		35				40						45			
Gln	Ser	His	Arg	Val	Gly	Ala	Ser	Thr	Val	Pro	Ala	Ser	Leu	Asp	Ser
	50					55					60				
Ser	Arg	Ser	Glu	Pro	Met	Gln	Gln	Leu	Leu	Asp	Pro	Asn	Thr	Leu	Gln
65					70				75					80	
Gln	Ser	Val	Glu	Ser	Arg	Tyr	Arg	Pro	Asn	Ile	Ile	Leu	Tyr	Ser	Glu
			85						90					95	
Gly	Val	Leu	Arg	Ser	Trp	Gly	Asp	Gly	Val	Ala	Ala	Asp	Cys	Cys	Glu
			100					105					110		
Thr	Thr	Phe	Ile	Glu	Asp	Arg	Ser	Pro	Thr	Lys	Asp	Ser	Leu	Glu	Tyr
		115					120					125			
Pro	Asp	Gly	Lys	Phe	Ile	Asp	Leu	Ser	Ala	Asp	Asp	Ile	Lys	Ile	His
		130				135					140				
Thr	Leu	Ser	Tyr	Asp	Val	Glu	Glu	Glu	Glu	Glu	Phe	Gln	Glu	Leu	Glu
145					150				155					160	
Ser	Asp	Tyr	Ser	Ser	Asp	Thr	Glu	Ser	Glu	Asp	Asn	Phe	Leu	Met	Met
			165						170					175	
Pro	Pro	Arg	Asp	His	Leu	Gly	Leu	Ser	Val	Phe	Ser	Met	Leu	Cys	Cys
			180				185						190		
Phe	Trp	Pro	Leu	Gly	Ile	Ala	Ala	Phe	Tyr	Leu	Ser	His	Glu	Thr	Asn

	195		200		205										
Lys	Ala	Val	Ala	Lys	Gly	Asp	Leu	His	Gln	Ala	Ser	Thr	Ser	Ser	Arg
	210				215						220				
Arg	Ala	Leu	Phe	Leu	Ala	Val	Leu	Ser	Ile	Thr	Ile	Gly	Thr	Gly	Val
225				230					235					240	
Tyr	Val	Gly	Val	Ala	Val	Ala	Leu	Ile	Ala	Tyr	Leu	Ser	Lys	Asn	Asn
			245						250					255	

His Leu

<210> 5285
 <211> 2155
 <212> DNA
 <213> Homo sapiens

<400> 5285
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 420
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 1920
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 1980
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 2155

<210> 5286
 <211> 628
 <212> PRT
 <213> Homo sapiens

<400> 5286
 Xaa Arg Val Gln Gln Arg Met Glu Glu Ser Glu Pro Glu Arg Lys Arg
 1 5 10 15
 Ala Arg Thr Asp Glu Val Pro Ala Gly Gly Ser Arg Ser Glu Ala Glu
 20 25 30
 Asp Glu Asp Asp Glu Asp Tyr Val Pro Tyr Val Pro Leu Arg Gln Arg
 35 40 45
 Arg Gln Leu Leu Leu Gln Lys Leu Leu Gln Arg Arg Arg Lys Gly Ala
 50 55 60
 Ala Glu Glu Glu Gln Gln Asp Ser Gly Ser Glu Pro Arg Gly Asp Glu
 65 70 75 80
 Asp Asp Ile Pro Leu Gly Pro Gln Ser Asn Val Ser Leu Leu Asp Gln
 85 90 95
 His Gln His Leu Lys Glu Lys Ala Glu Ala Arg Lys Glu Ser Ala Lys

100 105 110
 Glu Lys Gln Leu Lys Glu Glu Glu Lys Ile Leu Glu Ser Val Ala Glu
 115 120 125
 Gly Arg Ala Leu Met Ser Val Lys Glu Met Ala Lys Gly Ile Thr Tyr
 130 135 140
 Asp Asp Pro Ile Lys Thr Ser Trp Thr Pro Pro Arg Tyr Val Leu Ser
 145 150 155 160
 Met Ser Glu Glu Arg His Glu Arg Val Arg Lys Lys Tyr His Ile Leu
 165 170 175
 Val Glu Gly Asp Gly Ile Pro Pro Pro Ile Lys Ser Phe Lys Glu Met
 180 185 190
 Lys Phe Pro Ala Ala Ile Leu Arg Gly Leu Lys Lys Lys Gly Ile His
 195 200 205
 His Pro Thr Pro Ile Gln Ile Gln Gly Ile Pro Thr Ile Leu Ser Gly
 210 215 220
 Arg Asp Met Ile Gly Ile Ala Phe Thr Gly Ser Gly Lys Thr Leu Val
 225 230 235 240
 Phe Thr Leu Pro Val Ile Met Phe Cys Leu Glu Gln Glu Lys Arg Leu
 245 250 255
 Pro Phe Ser Lys Arg Glu Gly Pro Tyr Gly Leu Ile Ile Cys Pro Ser
 260 265 270
 Arg Glu Leu Ala Arg Gln Thr His Gly Ile Leu Glu Tyr Tyr Cys Arg
 275 280 285
 Leu Leu Gln Glu Asp Ser Ser Pro Leu Leu Arg Cys Ala Leu Cys Ile
 290 295 300
 Gly Gly Met Ser Val Lys Glu Gln Met Glu Thr Ile Arg His Gly Val
 305 310 315 320
 His Met Met Val Ala Thr Pro Gly Arg Leu Met Asp Leu Leu Gln Lys
 325 330 335
 Lys Met Val Ser Leu Asp Ile Cys Arg Tyr Leu Ala Leu Asp Glu Ala
 340 345 350
 Asp Arg Met Ile Asp Met Gly Phe Glu Gly Asp Ile Arg Thr Ile Phe
 355 360 365
 Ser Tyr Phe Lys Gly Gln Arg Gln Thr Leu Leu Phe Ser Ala Thr Met
 370 375 380
 Pro Lys Lys Ile Gln Asn Phe Ala Lys Ser Ala Leu Val Lys Pro Val
 385 390 395 400
 Thr Ile Asn Val Gly Arg Ala Gly Ala Ala Ser Leu Asp Val Ile Gln
 405 410 415
 Glu Val Glu Tyr Val Lys Glu Glu Ala Lys Met Val Tyr Leu Leu Glu
 420 425 430
 Cys Leu Gln Lys Thr Pro Pro Pro Val Leu Ile Phe Ala Glu Lys Lys
 435 440 445
 Ala Asp Val Asp Ala Ile His Glu Tyr Leu Leu Leu Lys Gly Val Glu
 450 455 460
 Ala Val Ala Ile His Gly Gly Lys Asp Gln Glu Glu Arg Thr Lys Ala
 465 470 475 480
 Ile Glu Ala Phe Arg Glu Gly Lys Lys Asp Val Leu Val Ala Thr Asp
 485 490 495
 Val Ala Ser Lys Gly Leu Asp Phe Pro Ala Ile Gln His Val Ile Asn
 500 505 510
 Tyr Asp Met Pro Glu Glu Ile Glu Asn Tyr Val His Arg Ile Gly Arg
 515 520 525
 Thr Gly Arg Ser Gly Asn Thr Gly Ile Ala Thr Thr Phe Ile Asn Lys

530 535 540
 Ala Cys Asp Glu Ser Val Leu Met Asp Leu Lys Ala Leu Leu Leu Glu
 545 550 555 560
 Ala Lys Gln Lys Val Pro Pro Val Leu Gln Val Leu His Cys Gly Asp
 565 570 575
 Glu Ser Met Leu Asp Ile Gly Gly Glu Arg Gly Cys Ala Phe Cys Gly
 580 585 590
 Gly Leu Gly His Arg Ile Thr Asp Cys Pro Lys Leu Glu Ala Met Gln
 595 600 605
 Thr Lys Gln Val Ser Asn Ile Gly Arg Lys Asp Tyr Leu Ala His Ser
 610 615 620
 Ser Met Asp Phe
 625

<210> 5287
 <211> 581
 <212> DNA
 <213> Homo sapiens

<400> 5287
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 agccccgcgc cgcactccat cccacacaggc tggggacggg ccagggtgcgg ctgtgtgggt
 120
 tcgggagcgg agttgcagaa tccaaggacc cttttgttc tttctccgca ctgctttatg
 180
 ggaggcatta tggcccccaa agacataatg acaaatactc atgctaaatc catcctcaat
 240
 tcaatgaact ccctcaggaa gagcaatacc ctctgtgatg tgacattgag agtagagcag
 300
 aaagacttcc ctgcccacg gattgtgctg gctgcctgta gtgattactt ctgtgccatg
 360
 ttcactagtg agctctcaga gaaggggaaa ctttatgttg acatccaagg ttgactgcc
 420
 tctaccatgg aaattttatt ggactttgtg tacacagaaa cggtacatgt gacagtggag
 480
 aatgtacaag aactgcttcc tgcagcctgt ctgcttcagt tgaaagggtgt gaaacaagcc
 540
 tgctgtgagt tcttagaaaag tcagttggac ctttcacgcg t
 581

<210> 5288
 <211> 193
 <212> PRT
 <213> Homo sapiens

<400> 5288
 Xaa Glu Pro Pro Glu Pro Pro Gly Leu Gly Gly Ala Ser Ala Pro Pro
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 Glu Pro Pro Ala Ser Pro Ala Pro His Ser Ile Pro Thr Gly Trp Gly
 20 25 30
 Arg Ala Arg Cys Gly Cys Val Gly Ser Gly Ala Glu Leu Gln Asn Pro
 35 40 45
 Arg Thr His Phe Val Leu Ser Pro His Cys Phe Met Gly Gly Ile Met

50 55 60
 Ala Pro Lys Asp Ile Met Thr Asn Thr His Ala Lys Ser Ile Leu Asn
 65 70 75 80
 Ser Met Asn Ser Leu Arg Lys Ser Asn Thr Leu Cys Asp Val Thr Leu
 85 90 95
 Arg Val Glu Gln Lys Asp Phe Pro Ala His Arg Ile Val Leu Ala Ala
 100 105 110
 Cys Ser Asp Tyr Phe Cys Ala Met Phe Thr Ser Glu Leu Ser Glu Lys
 115 120 125
 Gly Lys Pro Tyr Val Asp Ile Gln Gly Leu Thr Ala Ser Thr Met Glu
 130 135 140
 Ile Leu Leu Asp Phe Val Tyr Thr Glu Thr Val His Val Thr Val Glu
 145 150 155 160
 Asn Val Gln Glu Leu Leu Pro Ala Ala Cys Leu Leu Gln Leu Lys Gly
 165 170 175
 Val Lys Gln Ala Cys Cys Glu Phe Leu Glu Ser Gln Leu Asp Pro Ser
 180 185 190
 Arg

<210> 5289
 <211> 361
 <212> DNA
 <213> Homo sapiens

<400> 5289
 agatctctgt acacatgtta caccagacag ctatattcca tgccttgacg acctgtgcaa
 60
 agcactatgg gaagttatgc tcagctatta taggactatg gaatggcatg aaaagcatga
 120
 caatgaggat actgcttcag cttctgaagg ggaagtatat gataggggtcc tgaagaaact
 180
 tattttgatc ggggctacat taaaaaagaa attagaacat ggacttacac gaatatggca
 240
 ggatgttcag ctaaaagtaa aaacctactt gcttggaact gatttgtcta tattcaaata
 300
 tgatgatttc atctttgttt tggatataat cagcaggttg atgcaagttg gagaagaatt
 360
 c
 361

<210> 5290
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 5290
 Met Leu Ser Tyr Tyr Arg Thr Met Glu Trp His Glu Lys His Asp Asn
 5 10 15
 1 20 25 30
 Glu Asp Thr Ala Ser Ala Ser Glu Gly Glu Val Tyr Asp Arg Val Leu
 35 40 45
 Lys Lys Leu Ile Leu Ile Gly Ala Thr Leu Lys Lys Lys Leu Glu His
 Gly Leu Thr Arg Ile Trp Gln Asp Val Gln Leu Lys Val Lys Thr Tyr

50		55		60											
Leu	Leu	Gly	Thr	Asp	Leu	Ser	Ile	Phe	Lys	Tyr	Asp	Asp	Phe	Ile	Phe
65				70					75					80	
Val	Leu	Asp	Ile	Ile	Ser	Arg	Leu	Met	Gln	Val	Gly	Glu	Glu	Phe	
			85					90						95	

<210> 5291
 <211> 767
 <212> DNA
 <213> Homo sapiens

<400> 5291
 gtcgggaggt tctttgcgct gatagcaggg acgaagacca caccattgac caagaagatg
 60
 aagatggcca cgcagaagac tcccagcagg gcgtacatgc ccagctctag ctcagtgaca
 120
 tgctgagggg cagggaccat ctctctctcc tcttctctct cctccttggc tttggtctcc
 180
 tccttcttgg cctctctctc tgcccgtcga aacttgcccc tcacacctgt gttgccccgc
 240
 aactgcctg ccacctgccg ttaccaccc atggtggctt ctgtggctgg tgggctccaa
 300
 gcagggtgg atggggagag caggggctgg agtggaggca gggggcagcc ccaccaggc
 360
 ggtgccagag gccaaaggca cacggtggcg gccccggcgn gcagggtctg ggcgggtgca
 420
 gagcccatg cagcggcagc ccctcggcgc ctgccccact caccaccacc ccgagctggg
 480
 caccctgctc ctcagctggc aggatggcac caggctcttc ggctgaaacg gacagtccca
 540
 gtcaggcggt cgtagagctc agctgggcca cagtgtgatc agagaaggac agccataggg
 600
 agagggccac ctctgtggg gcacacagac acaggcagag acatgcgagg gcacgcacgc
 660
 atgcacagag aaaccactcc cacagagaca ggccacatgg aggagagacc agagagaaaa
 720
 cagagacaca ggcagataga caaacacag ggagagaggg gacgcgt
 767

<210> 5292
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 5292
 Gly Ala Gly Thr Ile Ser Ser Ser Ser Ser Ser Ser Ser Leu Ala Leu
 1 5 10 15
 Val Ser Ser Phe Leu Ala Ser Ser Ser Ala Arg Ser Asn Leu Pro Leu
 20 25 30
 Thr Pro Val Leu Pro Pro Thr Leu Pro Ala Thr Cys Arg Leu Pro Pro
 35 40 45
 Met Val Ala Ser Val Ala Gly Gly Leu Gln Ala Gly Leu Asp Gly Glu
 50 55 60
 Ser Arg Gly Trp Ser Gly Gly Arg Gly Gln Pro His Pro Gly Gly Ala

65		70		75		80									
Arg	Gly	Gln	Arg	His	Thr	Val	Ala	Ala	Pro	Ala	Xaa	Arg	Ala	Arg	Ala
				85					90					95	
Gly	Ala	Glu	Pro	His	Ala	Ala	Ala	Ala	Pro	Arg	Arg	Leu	Pro	His	Ser
			100					105					110		
Pro	Pro	Pro	Arg	Ala	Gly	His	Pro	Ala	Pro	Gln	Leu	Ala	Gly	Trp	His
			115				120					125			
Gln	Ala	Pro	Arg	Leu	Lys	Arg	Thr	Val	Pro	Val	Arg	Arg	Ser		
	130					135					140				

<210> 5293
 <211> 1428
 <212> DNA
 <213> Homo sapiens

<400> 5293
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 60
 cggtgcaccc cagcctcccc cactcgggtt ctgagcttga gctggcggct ctttaactct
 120
 gcttcactgt tgctcttggc aacatccact tccgggagcg agtgccgttt ccccgctca
 180
 ccgcggtgta gggagcgtgg gattccggac tgtgagcggc tgtagtgcg tcgcagctgc
 240
 tggcgatccg gcgaccctcg gccggcagga cccgcgggccc acgcagccgg ggccttctca
 300
 acgcctcagt acctcggcgg gaccgccatg gttctgctgc acgtgaagcg gggcgacgag
 360
 agccagttec tgctgcaggc gcctgggagt accgagctgg aggagctcac ggtgcaggtg
 420
 gcccggtctc ataatgggcg gctcaaggtg cagcgctctc gctcagaaat ggaagaatta
 480
 gccgaacatg gcatatttct ccctccta atgcaaggac tgaccgatga tcagattgaa
 540
 gaattgaaat tgaaggatga atggggtgaa aaatgcgtac ccagcggagg tgcagtgttt
 600
 aaaaaggatg atattggacg aaggaatggg caagctccaa atgagaagat gaagcaagtg
 660
 ttaaagaaga ctatagaaga agccaaggca ataatatcta agaaacaagt ggaagccggt
 720
 gtctgtgtta ccatggagat ggtgaaagat gccttggaac agcttcgagg cgcggtgatg
 780
 attgtttacc ccatggggtt gccaccgtat gatcccatcc gcatggagtt tgaaaataag
 840
 gaagacttgt cgggaacaca ggcagggctc aacgtcatta aagaggcaga ggcgagctg
 900
 tgggtgggcag ccaaggagct gagaagaacg aagaagcttt cagactacgt ggggaagaat
 960
 gaaaaaacca aaattatcgc caagattcag caaaggggac agggagctcc agcccagag
 1020
 cctattatta gcagtgagga gcagaagcag ctgatgctgt actatcacag aagacaagag
 1080
 gagctcaaga gattggaaga aaatgatgat gatgcctatt taaactcacc atgggcggat
 1140

aacactgctt tgaaaagaca ttttcatgga gtgaaagaca taaagtggag accaagatga
 1200
 agttcaccag ctgatgacac ttccaaagag attagctcac ctttctccta ggcaattata
 1260
 atttaaaaaa aaaaaaaagg ccacttactg ccctctgtaa aagatgttaa catttctagt
 1320
 tttcttttag tgtgaatttt taaaatagca gttattcaag gttttagaac ttaataaata
 1380
 cctagtcaga agaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaa
 1428

<210> 5294

<211> 290

<212> PRT

<213> Homo sapiens

<400> 5294

Met	Val	Leu	Leu	His	Val	Lys	Arg	Gly	Asp	Glu	Ser	Gln	Phe	Leu	Leu
1				5					10					15	
Gln	Ala	Pro	Gly	Ser	Thr	Glu	Leu	Glu	Glu	Leu	Thr	Val	Gln	Val	Ala
			20					25					30		
Arg	Val	Tyr	Asn	Gly	Arg	Leu	Lys	Val	Gln	Arg	Leu	Cys	Ser	Glu	Met
		35				40						45			
Glu	Glu	Leu	Ala	Glu	His	Gly	Ile	Phe	Leu	Pro	Pro	Asn	Met	Gln	Gly
	50					55					60				
Leu	Thr	Asp	Asp	Gln	Ile	Glu	Glu	Leu	Lys	Leu	Lys	Asp	Glu	Trp	Gly
65				70					75					80	
Glu	Lys	Cys	Val	Pro	Ser	Gly	Gly	Ala	Val	Phe	Lys	Lys	Asp	Asp	Ile
			85					90					95		
Gly	Arg	Arg	Asn	Gly	Gln	Ala	Pro	Asn	Glu	Lys	Met	Lys	Gln	Val	Leu
			100					105					110		
Lys	Lys	Thr	Ile	Glu	Glu	Ala	Lys	Ala	Ile	Ile	Ser	Lys	Lys	Gln	Val
		115					120					125			
Glu	Ala	Gly	Val	Cys	Val	Thr	Met	Glu	Met	Val	Lys	Asp	Ala	Leu	Asp
	130					135				140					
Gln	Leu	Arg	Gly	Ala	Val	Met	Ile	Val	Tyr	Pro	Met	Gly	Leu	Pro	Pro
145				150						155				160	
Tyr	Asp	Pro	Ile	Arg	Met	Glu	Phe	Glu	Asn	Lys	Glu	Asp	Leu	Ser	Gly
			165					170					175		
Thr	Gln	Ala	Gly	Leu	Asn	Val	Ile	Lys	Glu	Ala	Glu	Ala	Gln	Leu	Trp
		180						185					190		
Trp	Ala	Ala	Lys	Glu	Leu	Arg	Arg	Thr	Lys	Lys	Leu	Ser	Asp	Tyr	Val
		195					200					205			
Gly	Lys	Asn	Glu	Lys	Thr	Lys	Ile	Ile	Ala	Lys	Ile	Gln	Gln	Arg	Gly
	210					215					220				
Gln	Gly	Ala	Pro	Ala	Arg	Glu	Pro	Ile	Ile	Ser	Ser	Glu	Glu	Gln	Lys
225				230						235				240	
Gln	Leu	Met	Leu	Tyr	Tyr	His	Arg	Arg	Gln	Glu	Glu	Leu	Lys	Arg	Leu
			245					250					255		
Glu	Glu	Asn	Asp	Asp	Asp	Ala	Tyr	Leu	Asn	Ser	Pro	Trp	Ala	Asp	Asn
		260						265				270			
Thr	Ala	Leu	Lys	Arg	His	Phe	His	Gly	Val	Lys	Asp	Ile	Lys	Trp	Arg
		275				280						285			
Pro	Arg														

290

<210> 5295

<211> 1451

<212> DNA

<213> Homo sapiens

<400> 5295

tttttttttt tttttttttt tttttttttt attcagctaa catttattga gcccttaatg
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aacacataag agttttgact tcacggcagt tcatactggg acctcagacc actgaaggca
120
gacagtaacg agcagtgctg gccgggcccc accttcagag ggggcggaag ggcattctga
180
cacgtgtcat atggtaagag ggcattccac tcaccaggc ctggtgcagg actctgcaag
240
gccctcctga gtaaagagtg gccacgaagg gctgctaggc agcacctact cttggaatca
300
agcagggaaa aagtgcataa ttggagctgg cgggaggtgt gtgtgcctgc cccacagatg
360
gctgtggtga gccacaaagc accaagattc tgttcttcat tcagcaacca cccatgagcc
420
tcctgcttta ttccaatcgc atggcaccag cctgaaaacc tctctccctt ctgagaggaa
480
tgctggaatg aactccact ctgcccctcc ctcccctctt ccttgctcag ggtccatgtg
540
aacagcaggc cattgttggg aagtgcctgt tgcagtcatt cttacacccc cacagccact
600
gccccacaca cccactggtg gctaccaagg cccgtcaata gatcttgtgt ccaccgagcc
660
ctggtgtcca ggtccagcag ccagacaggc tgaagggtcc ctccctgcat cacagagtag
720
ccaagcacta caaagagggt ttcatggcca gattcctgac ggctggcccc ttacagggca
780
gatcctgtcc ttacaggtgt caaggttga gggctcctggg tcctccatga ccttgggggg
840
ttgctgttcc cccatcttgg ttcttgagtc tcattccttc aagatgacct tgagagcttt
900
aagctcatcc tgggtgaggg ggttcaagtt aaaacccttc agctccggtt tgccttgggc
960
ctcaaaaagg cgggtgacct tcactttaag ttgcttccgc agtttttcta tttctttatc
1020
cagatgatct tgatcttttt caatcatttc ctttgtctca gggtgaggca tcttgataaa
1080
catgttcccg aagcaaacca tcacatcttc agagaggctg agatccttct gcagggccct
1140
caggccctct cgattctgat tccttttagt gtccaggctc acaatctgcc gcttgtccgc
1200
cagcacctcc tcggcgagct cctccacttc tacaaggtag cgcagcactc gctctgcctc
1260
gggtgatagc atagcgccca ccaactccgc ttgcggctct cgcgcgaccc cgggatctcc
1320
gcttcgggaa catgtttatc aagatgcctc accctgagac aaaggaaatg attgaaaaag
1380

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 1440
 ccttcacgcg t
 1451

<210> 5296
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 5296
 Met Leu Ser Pro Glu Ala Glu Arg Val Leu Arg Tyr Leu Val Glu Val
 1 5 10 15
 Glu Glu Leu Ala Glu Glu Val Leu Ala Asp Lys Arg Gln Ile Val Asp
 20 25 30
 Leu Asp Thr Lys Arg Asn Gln Asn Arg Glu Gly Leu Arg Ala Leu Gln
 35 40 45
 Lys Asp Leu Ser Leu Ser Glu Asp Val Met Val Cys Phe Gly Asn Met
 50 55 60
 Phe Ile Lys Met Pro His Pro Glu Thr Lys Glu Met Ile Glu Lys Asp
 65 70 75 80
 Gln Asp His Leu Asp Lys Glu Ile Glu Lys Leu Arg Lys Gln Leu Lys
 85 90 95
 Val Lys Val Asn Arg Leu Phe Glu Ala Gln Gly Lys Pro Glu Leu Lys
 100 105 110
 Gly Phe Asn Leu Asn Pro Leu Asn Gln Asp Glu Leu Lys Ala Leu Lys
 115 120 125
 Val Ile Leu Lys Gly
 130

<210> 5297
 <211> 5318
 <212> DNA
 <213> Homo sapiens

<400> 5297
 tgtgacagag cagtaagact aacgaaacaa ggggtcaaata catctggatc tgatacactc
 60
 agcttcccat tgctgagagc tctgtctgtt gattgtggaa aaggacacct cttctgctgg
 120
 gagtgccttg gtgaagcaca tgagccttgt gactgccaaa catggaagaa ttggctgcaa
 180
 aaaataaccg aaatgaaacc agaagaactt gtgggagtta gtgaagccta cgaggatgcc
 240
 gccaatgttc tctggttatt aactaactcc aagccttgtg ccaactgtaa gtctccaata
 300
 cagaagaatg aaggctgcaa tcacatgcag tgtgctaagt gcaagtatga cttttgctgg
 360
 atttgcttg aagagtggaa aaaacatagt tcgtccactg gaggttatta cggatgtact
 420
 cgctatgaag tcattcaaca cgtggaggag caatccaagg aaatgactgt ggaggctgag
 480
 aaaaaacaca aacgatttca ggaacttgac agatttatgc actattatac aagattttaa
 540

aaccatgagc atagttatca gctagaacaa cgccttctta aaacagccaa agaaaagatg
600
gagcaattga gcagagctct caaagaaact gaaggaggct gtccagatac cactttcatt
660
gaagatgcag ttcattgtgct cttaaaaact cggcgcatc tcaagtgttc ttatccatat
720
ggatttttct tggaacctaa aagcacaaag aaagaaattt ttgaactaat gcaaacagac
780
ctagaaatgg tactgaaga ccttgcccag aaagtcaata ggcttacct tcgcacaccc
840
cgccacaaga tcatcaaagc agcatgcctt gtacagcaga agaggcaaga attcctggca
900
tctgtggctc ggggagtagc tcctgcagac tcaccagaag ctccaaggcg cagctttgct
960
ggtggaacat gggattggga atatttagga tttgcatcac cagaggaata tgctgaattt
1020
cagtatcgga ggaggcacag acaacgtcgt cgaggagatg ttcacagtct actcagtaat
1080
cctccagacc ctgatgagcc aagtgaaagc actttagata ttccagaagg cggcagcagc
1140
agccgcagge ctggcacatc cgtggttaagt tctgcatcta tgagtgtgct gcacagctct
1200
tccttgcgtg actacacccc tgccagtcgc tctgaaaacc aggactctct tcaggctctg
1260
agttccttgg atgaagacga tcccaatata cttcttgcaa tacagttatc actgcaagag
1320
tctgggctgg ccctcgatga agaaactaga gacttcctca gtaatgaagc atccttaggt
1380
gcatagggca cttctttacc ttccaggctg gactctgtcc ccagaaatac agatagccct
1440
cgggctgcat tgagcagctc tgagcttttg gaacttggtg acagcctcat gagactagga
1500
gcagagaatg acccattttc aactgacacc ctgagctcac accctctcag tgaggcaaga
1560
agtgttttct gtccctcatc tagtgatcct gactcagctg gccaggaccc caacatcaat
1620
gacaatcttc tcggcaacat catggcttgg tttcatgaca tgaacctca gagtattgcc
1680
ctgattcctc cagcaactac agaaatcagt gcagattccc agctcccctg tatcaaagat
1740
gggtcagaag gtgtgaagga tgtggaactg gtgctgccag aagattcaat gtttgaagat
1800
gccagtgtca gtgaaggtag aggaaccag atagaagaaa atcctttgga agaaaatatt
1860
ctggcggggg aagcagcatc tcaagctggt gacagtggta acgaggcagc caacagagga
1920
gatggttcag atgtttcaag tcaaacacct caaacctcaa gtgactggct tgaacaagta
1980
catttagtgt gaactgcaca catctgggct ctaaatgaat tacaggtaca gatggtatgc
2040
taggtggagt atgcttgata gagactttga ttcacttaat tccaactcag tgataaacca
2100
ctgacattag ggttgaatac agagaagttc ccttgaatgg tagcttcatt ttttatttta
2160

accttacagg gaatttcctt tgtacttaat tgaatagctt ttcccccttt tgctgacaaa
2220
aagaagagca agagaaagag aaacaaaaat gaaataaata agttgtattc cacactctaa
2280
gaaaatgcag tcctctattt agcctaggct tgacaatact taaattgaac atttaaacta
2340
aaggcttact ccctaactct tgggtggctt tcctttaaaa aaaaaaaaaa agttttcttc
2400
attctagaaa tttattttgg ataaatccga taacatatat gtctcaatc tctttgtgct
2460
cttcataac ttacttcctt tttgtctgag caatgtgaat tgaagtctct ttagtaccac
2520
atctaccata gtgtaattag ttttaatttt cacatgaatc aaagggttcc tttcatgtct
2580
atttacagtc caattgtgcc aaactcttac ttgtgtgctg actaacaagg catttaggtg
2640
tgcagcatcc tagagtgtc cagggcagtg tcagcgttct cgggagtaaa aggtgccact
2700
tggtagcaat gatattccag aattaaatgg gtttttggtg ccatggagac tgcatttata
2760
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<213> Homo sapiens

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 Gln His Phe Arg Thr Asn Gly Glu Phe Asp Tyr Leu Asp Leu Asp Tyr
 305 310 315 320
 Glu Ile Thr Phe Gly Gly Ile Pro Phe Ser Gly Lys Pro Ser Ser Ser
 325 330 335
 Ser Arg Lys Asn Phe Lys Gly Cys Met Glu Ser Ile Asn Tyr Asn Gly
 340 345 350
 Val Asn Ile Thr Asp Leu Ala Arg Lys Lys Leu Glu Pro Ser Asn
 355 360 365
 Val Gly Asn Leu Ser Phe Ser Cys Val Glu Pro Tyr Thr Val Pro Val
 370 375 380
 Phe Phe Asn Ala Thr Ser Tyr Leu Glu Val Pro Gly Arg Leu Asn Gln
 385 390 395 400
 Asp Leu Phe Ser Val Ser Phe Gln Phe Arg Thr Trp Asn Pro Asn Gly
 405 410 415
 Leu Leu Val Phe Ser His Phe Ala Asp Asn Leu Gly Asn Val Glu Ile
 420 425 430
 Asp Leu Thr Glu Ser Lys Val Gly Val His Ile Asn Ile Thr Gln Thr
 435 440 445
 Lys Met Ser Gln Ile Asp Ile Ser Ser Gly Ser Gly Leu Asn Asp Gly
 450 455 460
 Gln Trp His Glu Val Arg Phe Leu Ala Lys Glu Asn Phe Ala Ile Leu
 465 470 475 480
 Thr Ile Asp Gly Asp Glu Ala Ser Ala Val Arg Thr Asn Ser Pro Leu

485 490 495
 Gln Val Lys Thr Gly Glu Lys Tyr Phe Phe Gly Gly Phe Leu Asn Gln
 500 505 510
 Met Asn Asn Ser Ser His Ser Val Leu Gln Pro Ser Phe Gln Gly Cys
 515 520 525
 Met Gln Leu Ile Gln Val Asp Asp Gln Leu Val Asn Leu Tyr Glu Val
 530 535 540
 Ala Gln Arg Lys Pro Gly Ser Phe Ala Asn Val Ser Ile Asp Met Cys
 545 550 555 560
 Ala Ile Ile Asp Arg Cys Val Pro Asn His Cys Glu His Gly Gly Lys
 565 570 575
 Cys Ser Gln Thr Trp Asp Ser Phe Lys Cys Thr Cys Asp Glu Thr Gly
 580 585 590
 Tyr Ser Gly Ala Thr Cys His Asn Ser Ile Tyr Glu Pro Ser Cys Glu
 595 600 605
 Ala Tyr Lys His Leu Gly Gln Thr Ser Asn Tyr Tyr Trp Ile Asp Pro
 610 615 620
 Asp Gly Ser Gly Pro Leu Gly Pro Leu Lys Val Tyr Cys Asn Met Thr
 625 630 635 640
 Glu Asp Lys Val Trp Thr Ile Val Ser His Asp Leu Gln Met Gln Thr
 645 650 655
 Pro Val Val Gly Tyr Asn Pro Glu Lys Tyr Ser Val Thr Gln Leu Val
 660 665 670
 Tyr Ser Ala Ser Met Asp Gln Ile Ser Ala Ile Thr Asp Ser Ala Glu
 675 680 685
 Tyr Cys Glu Gln Tyr Val Ser Tyr Phe Cys Lys Met Ser Arg Leu Leu
 690 695 700
 Asn Thr Pro Asp Gly Ser Pro Tyr Thr Trp Trp Val Gly Lys Ala Asn
 705 710 715 720
 Glu Lys His Tyr Tyr Trp Gly Gly Ser Gly Pro Gly Ile Gln Lys Cys
 725 730 735
 Ala Cys Gly Ile Glu Arg Asn Cys Thr Asp Pro Lys Tyr Tyr Cys Asn
 740 745 750
 Cys Asp Ala Asp Tyr Lys Gln Trp Arg Lys Asp Ala Gly Phe Leu Ser
 755 760 765
 Tyr Lys Asp His Leu Pro Val Ser Gln Val Val Val Gly Asp Thr Asp
 770 775 780
 Arg Gln Gly Ser Glu Ala Lys Leu Ser Val Gly Pro Leu Arg Cys Gln
 785 790 795 800
 Gly Asp Arg Asn Tyr Trp Asn Ala Ala Ser Phe Pro Asn Pro Ser Ser
 805 810 815
 Tyr Leu His Phe Ser Thr Phe Gln Gly Glu Thr Ser Ala Asp Ile Ser
 820 825 830
 Phe Tyr Phe Lys Thr Leu Thr Pro Trp Gly Val Phe Leu Glu Asn Met
 835 840 845
 Gly Lys Glu Asp Phe Ile Lys Leu Glu Leu Lys Ser Ala Thr Glu Val
 850 855 860
 Ser Phe Ser Phe Asp Val Gly Asn Gly Pro Val Glu Ile Val Val Arg
 865 870 875 880
 Ser Pro Thr Pro Leu Asn Asp Asp Gln Trp His Arg Val Thr Ala Glu
 885 890 895
 Arg Asn Val Lys Gln Ala Ser Leu Gln Val Asp Arg Leu Pro Gln Gln
 900 905 910
 Ile Arg Lys Ala Pro Thr Glu Gly His Thr Arg Leu Glu Leu Tyr Ser

915 920 925
 Gln Leu Phe Val Gly Gly Ala Gly Gly Gln Gln Gly Phe Leu Gly Cys
 930 935 940
 Ile Arg Ser Leu Arg Met Asn Gly Val Thr Leu Asp Leu Glu Glu Arg
 945 950 955 960
 Ala Lys Val Thr Ser Gly Phe Ile Ser Gly Cys Ser Gly His Cys Thr
 965 970 975
 Ser Tyr Gly Thr Asn Cys Glu Asn Gly Gly Lys Cys Leu Glu Arg Tyr
 980 985 990
 His Gly Tyr Ser Cys Asp Cys Ser Asn Thr Ala Tyr Asp Gly Thr Phe
 995 1000 1005
 Cys Asn Lys Asp Val Gly Ala Phe Phe Glu Glu Gly Met Trp Leu Arg
 1010 1015 1020
 Tyr Asn Phe Gln Ala Pro Ala Thr Asn Ala Arg Asp Ser Ser Ser Arg
 1025 1030 1035 1040
 Val Asp Asn Ala Pro Asp Gln Gln Asn Ser His Pro Asp Leu Ala Gln
 1045 1050 1055
 Glu Glu Ile Arg Phe Ser Phe Ser Thr Thr Lys Ala Pro Cys Ile Leu
 1060 1065 1070
 Leu Tyr Ile Ser Ser Phe Thr Thr Asp Phe Leu Ala Val Leu Val Lys
 1075 1080 1085
 Pro Thr Gly Ser Leu Gln Ile Arg Tyr Asn Leu Gly Gly Thr Arg Glu
 1090 1095 1100
 Pro Tyr Asn Ile Asp Val Asp His Arg Asn Met Ala Asn Gly Gln Pro
 1105 1110 1115 1120
 His Ser Val Asn Ile Thr Arg His Glu Lys Thr Ile Phe Leu Lys Leu
 1125 1130 1135
 Asp His Tyr Pro Ser Val Ser Tyr His Leu Pro Ser Ser Ser Asp Thr
 1140 1145 1150
 Leu Phe Asn Ser Pro Lys Ser Leu Phe Leu Gly Lys Val Ile Glu Thr
 1155 1160 1165
 Gly Lys Ile Asp Gln Glu Ile His Lys Tyr Asn Thr Pro Gly Phe Thr
 1170 1175 1180
 Gly Cys Leu Ser Arg Val Gln Phe Asn Gln Ile Ala Pro Leu Lys Ala
 1185 1190 1195 1200
 Ala Leu Arg Gln Thr Asn Ala Ser Ala His Val His Ile Gln Gly Glu
 1205 1210 1215
 Leu Val Glu Ser Asn Cys Gly Ala Ser Pro Leu Thr Leu Ser Pro Met
 1220 1225 1230
 Ser Ser Ala Thr Asp Pro Trp His Leu Asp His Leu Asp Ser Ala Ser
 1235 1240 1245
 Ala Asp Phe Pro Tyr Asn Pro Gly Gln Gly Gln Ala Ile Arg Asn Gly
 1250 1255 1260
 Val Asn Arg Asn Ser Ala Ile Ile Gly Gly Val Ile Ala Val Val Ile
 1265 1270 1275 1280
 Phe Thr Ile Leu Cys Thr Leu Val Phe Leu Ile Arg Tyr Met Phe Arg
 1285 1290 1295
 His Lys Gly Thr Tyr His Thr Asn Glu Ala Lys Gly Ala Glu Ser Ala
 1300 1305 1310
 Glu Ser Ala Asp Ala Ala Ile Met Asn Asn Asp Pro Asn Phe Thr Glu
 1315 1320 1325
 Thr Ile Asp Glu Ser Lys Lys Glu Trp Leu Ile
 1330 1335

<210> 5303
 <211> 334
 <212> DNA
 <213> Homo sapiens

<400> 5303
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 120
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 180
 ccaaagagat ggaaggcctg gcagacagtg ggccctggcgg ggcggggccgg ccgcgcggccg
 240
 tggcagcccc tgagggcagc acggagtttg actgggggtga tgagacgtcg agggacagtg
 300
 gaggccagca gtgtggcgac tcgtggagac tcac
 334

<210> 5304
 <211> 95
 <212> PRT
 <213> Homo sapiens

<400> 5304
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 Arg Arg Gly Tyr Cys Ser Arg His Leu Ser Met Arg Thr Lys Glu Met
 35 40 45
 Glu Gly Leu Ala Asp Ser Gly Pro Gly Gly Ala Gly Arg Pro Ala Ala
 50 55 60
 Val Ala Ala Arg Glu Gly Ser Thr Glu Phe Asp Trp Gly Asp Glu Thr
 65 70 75 80
 Ser Arg Asp Ser Gly Gly Gln Gln Cys Gly Asp Ser Trp Arg Leu
 85 90 95

<210> 5305
 <211> 582
 <212> DNA
 <213> Homo sapiens

<400> 5305
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 120
 ctgttgtagg cactggctag ggaggggcag gcctccttcc tgcccctcga gacactcttg
 180
 ggagatgcat tttccgtctg gtcacaggg ggaggggtgag gctttgtacc ccagcccctg
 240
 cccaggccac tgtgaggggtg ggtgctggct gagccctgg ggcagaagga gtggggcagg
 300

cggggtcttt gttctcggct cccacagcag agccaggtga gggggggcct gccaggacta
 360
 gacagaagtg gggcggcctg aacctgtctt ccagccatgg ccaggggcca cggaaccggg
 420
 caggggtgtc tgaagccgcc ctgtcagctg gccgggtccaa gcctgtggct ggagctgggt
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 540
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aa
 582

<210> 5306
 <211> 62
 <212> PRT
 <213> Homo sapiens

<400> 5306
 Met Ala Arg Gly His Gly Thr Arg Gln Gly Cys Leu Lys Pro Pro Cys
 1 5 10 15
 Gln Leu Ala Gly Pro Ser Leu Trp Leu Glu Leu Val Cys Val Tyr Leu
 20 25 30
 Ile Lys Ser His Arg Cys Leu Lys Lys Lys Lys Lys Lys Lys Lys
 35 40 45
 Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys Lys
 50 55 60

<210> 5307
 <211> 1551
 <212> DNA
 <213> Homo sapiens

<400> 5307
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 cattctgtct cccagccttt cttctctctt tgtgtgtctc cagcacttec ttcttttcta
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 acatggcctg gagagagtct ctctctcctt gtctctgtct cttaataata gtttttaacg
 240
 tggacatctc ttccttggtg cagtggtttt taaatactga gaagaaccaa gtcagggtttt
 300
 tttaaagcaga ctaaaagcat gaaattgctt tcagaagaat gtatatcatc gggaaaagtt
 360
 cgggggcaga gtgggggaat caggctttat tcaaaagaaa cagttgaaaa catgggactt
 420
 tttctaccca atgcccattt cacgactcct ctgagactaa ttgggaaacg gggaaattct
 480
 tggaattttt tttttaagaa acttttttgt gtttttttta atttttaggtc acttattagt
 540
 gaaacctcat tttagatctg acattggtag atagatggat ttaggcaa atgatgcgtt
 600
 tgtggggaat ccacgtgggt gacgttagaa cctcccttct gcagactggt gcctgtcatc
 660

taagcgaatt ggaaatgctg agcttccata agtcagctga gttttaaaagg taaacgttat
 720
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 780
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 840
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 900
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 960
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 1080
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 caatcagcaa ggacctatct ctgccctggg tcagctcctc agaaccaacc cccagcatct
 1200
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 1260
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 1320
 caacttctct atgcatctgt gtgagcagat gatcattgta ttacctttta tcggtagtaa
 1380
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 1440
 gtttaaaata aactgaatgt atttaatggg ccatttatat gttcttttat gtaacatgta
 1500
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 1551

<210> 5308

<211> 112

<212> PRT

<213> Homo sapiens

<400> 5308

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Leu	Leu	Ile	Asp	Leu	Thr	Trp	Thr	His	Arg	Gly	Gly	Lys	Thr	Cys	Gly
			20					25					30		
Asp	His	His	Arg	Gly	His	Gly	Pro	Thr	Ser	Val	Ile	Trp	Glu	Thr	Gly
			35				40					45			
Leu	Gly	Arg	Gly	Gly	Asp	Phe	Pro	Lys	Ser	Pro	Ser	Ile	His	Asp	Arg
			50			55				60					
Gly	Arg	Ala	Trp	Glu	Leu	Gly	Thr	Gln	Gly	Ser	Ser	Lys	Arg	Ser	Arg
65					70				75					80	
Ser	Leu	Cys	Tyr	Pro	Gln	Ile	His	Lys	Leu	Arg	Ile	Thr	Cys	Ile	His
			85				90						95		
Phe	Pro	Pro	Pro	Trp	Thr	Leu	Cys	Phe	Glu	Leu	Phe	Cys	Leu	Pro	Asp
			100				105						110		

<210> 5309

<211> 2078

<212> DNA
<213> Homo sapiens

<400> 5309
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120
tccacccgca acgtactccg ggtcggcctt gcgctcgggg cctgagaggg gcggcggcgg
180
ggtcaggggc cgcacaaaga atgaaccagc agtggaagag aaaatactgt aagctggctg
240
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300
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360
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420
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480
gtaaaaggag cttcatggct tggaaagcgg tgtgctcttt gtcgacaaga aattcccag
540
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600
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660
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720
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780
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840
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900
gcggacagtg tatcagcaca gagtggagct tctgttcagc ccctagtgtc ttctgtaagg
960
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1020
acttctctgg aagactcttt tgctcattta caactcagtg gagacaacac agctgaaagg
1080
agtcataggg gagaaggaga agaagatcat gaatcaccat cttcaggcag ggtaccagca
1140
ccagacacct ccattgaaga aactgaatca gatgccagta gtgatagtga ggatgtatct
1200
gcagttgttg cacagcactc cttgacccaa cagagacttt tggtttctaa tgcaaaccag
1260
acagtacccg atcgatcaga tcgatcggga actgatcgat cagtagcagg ggggtggaaca
1320
gtgagtgtca gtgtcagatc tagaaggcct gatggacagt gcacagtaac tgaagttaa
1380
ataaaaaatgt cttcagctcc atgctcaagg ttgaaagggt tacctgtaaa tttctgcca
1440
cataacatta tactcatccc tagtagtgca ttttgggagt tggggtggga aggggtatgg
1500

gaaggataga ctcataatta aaatgtctaa catgtctctg ttgagaaatt tatttaatgt
 1560
 aaggaacttg ggtgttaata gttgagagct gtttagtaat aaccagttt tcttgagggtc
 1620
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 1680
 ctgtgcatta atggctctca tctgactcct gcattgtgtc ttatttttct gcatggattg
 1740
 gcataagacc attactaaaa tttggcacct gtgagatggt tgatattatg aacaggaaac
 1800
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 1860
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 1920
 ttgtaacaca cttcatgggtg ttcccatagg ctttgctgtc tagtcttata gtttgagggt
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 2040
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 2078

<210> 5310

<211> 359

<212> PRT

<213> Homo sapiens

<400> 5310

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Thr	Asn	Arg	Lys	Ala	Asn	Glu	Ser	Cys	Ser	Asn	Thr	Ala	Pro	Ser	Leu
	20							25				30			
Thr	Val	Pro	Glu	Cys	Ala	Ile	Cys	Leu	Gln	Thr	Cys	Val	His	Pro	Val
	35						40				45				
Ser	Leu	Pro	Cys	Lys	His	Val	Phe	Cys	Tyr	Leu	Cys	Val	Lys	Gly	Ala
	50					55				60					
Ser	Trp	Leu	Gly	Lys	Arg	Cys	Ala	Leu	Cys	Arg	Gln	Glu	Ile	Pro	Glu
65				70				75						80	
Asp	Phe	Leu	Asp	Lys	Pro	Thr	Leu	Leu	Ser	Pro	Glu	Glu	Leu	Lys	Ala
	85							90					95		
Ala	Ser	Arg	Gly	Asn	Gly	Glu	Tyr	Ala	Trp	Tyr	Tyr	Glu	Gly	Arg	Asn
	100							105				110			
Gly	Trp	Trp	Gln	Tyr	Asp	Glu	Arg	Thr	Ser	Arg	Glu	Leu	Glu	Asp	Ala
	115					120						125			
Phe	Ser	Lys	Gly	Lys	Lys	Asn	Thr	Glu	Met	Leu	Ile	Ala	Gly	Phe	Leu
130						135					140				
Tyr	Val	Ala	Asp	Leu	Glu	Asn	Met	Val	Gln	Tyr	Arg	Arg	Asn	Glu	His
145				150						155				160	
Gly	Arg	Arg	Arg	Lys	Ile	Lys	Arg	Asp	Ile	Ile	Asp	Ile	Pro	Lys	Lys
			165					170					175		
Gly	Val	Ala	Gly	Leu	Arg	Leu	Asp	Cys	Asp	Ala	Asn	Thr	Val	Asn	Leu
	180						185					190			
Ala	Arg	Glu	Ser	Ser	Ala	Asp	Gly	Ala	Asp	Ser	Val	Ser	Ala	Gln	Ser
	195					200					205				
Gly	Ala	Ser	Val	Gln	Pro	Leu	Val	Ser	Ser	Val	Arg	Pro	Leu	Thr	Ser

210 215 220
 Val Asp Gly Gln Leu Thr Ser Pro Ala Thr Pro Ser Pro Asp Ala Ser
 225 230 235 240
 Thr Ser Leu Glu Asp Ser Phe Ala His Leu Gln Leu Ser Gly Asp Asn
 245 250 255
 Thr Ala Glu Arg Ser His Arg Gly Glu Gly Glu Glu Asp His Glu Ser
 260 265 270
 Pro Ser Ser Gly Arg Val Pro Ala Pro Asp Thr Ser Ile Glu Glu Thr
 275 280 285
 Glu Ser Asp Ala Ser Ser Asp Ser Glu Asp Val Ser Ala Val Val Ala
 290 295 300
 Gln His Ser Leu Thr Gln Gln Arg Leu Leu Val Ser Asn Ala Asn Gln
 305 310 315 320
 Thr Val Pro Asp Arg Ser Asp Arg Ser Gly Thr Asp Arg Ser Val Ala
 325 330 335
 Gly Gly Gly Thr Val Ser Val Ser Val Arg Ser Arg Arg Pro Asp Gly
 340 345 350
 Gln Cys Thr Val Thr Glu Val
 355

<210> 5311
 <211> 572
 <212> DNA
 <213> Homo sapiens

<400> 5311
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 120
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 180
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 240
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 300
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 360
 gttgtggcca tcggttcac cagaggactt ctttttatgt atgttcagt taaagtgtat
 420
 gtgcaattgt ggaagagact caaggcctat aatagagtga tctatgttca aaactgtcca
 480
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 540
 aaacatggat atggaatctg tcattccgac ac
 572

<210> 5312
 <211> 190
 <212> PRT
 <213> Homo sapiens

<400> 5312
 Cys His Cys Glu Gly Asp Asp Glu Ser Pro Leu Ile Thr Pro Cys His

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      20           25           30
Ile Lys Ser Ser Asp Thr Arg Cys Glu Leu Cys Lys Tyr Glu Phe
      35           40           45
Ile Met Glu Thr Lys Leu Lys Pro Leu Arg Lys Trp Glu Lys Leu Gln
      50           55           60
Met Thr Ser Ser Glu Arg Arg Lys Ile Met Cys Ser Val Thr Phe His
      65           70           75           80
Val Ile Ala Ile Thr Cys Val Val Trp Ser Leu Tyr Val Leu Ile Asp
      85           90           95
Arg Pro Ala Glu Glu Ile Lys Gln Gly Gln Ala Thr Gly Ile Leu Glu
      100          105          110
Trp Pro Phe Trp Thr Lys Leu Val Val Val Ala Ile Gly Phe Thr Arg
      115          120          125
Gly Leu Leu Phe Met Tyr Val Gln Cys Lys Val Tyr Val Gln Leu Trp
      130          135          140
Lys Arg Leu Lys Ala Tyr Asn Arg Val Ile Tyr Val Gln Asn Cys Pro
      145          150          155          160
Glu Thr Ser Lys Lys Asn Ile Phe Glu Lys Ser Pro Leu Thr Glu Pro
      165          170          175
Asn Phe Glu Asn Lys His Gly Tyr Gly Ile Cys His Ser Asp
      180          185          190

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<210> 5313

<211> 322

<212> DNA

<213> Homo sapiens

<400> 5313

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120
gtgcgcctcg ctctgctctg ctccgagaag cccacgcaca gcctgctgcg gaggatcgcc
180
cagcagctgc cccggcaaca caggcaattc cacgttgtgt gcgactggcc tgtgcatatg
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gaggtgttca gtgacctggc cctggacact cctgctaaca ggacacacac atactctctt
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322

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<210> 5314

<211> 107

<212> PRT

<213> Homo sapiens

<400> 5314

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Thr Arg Val Leu Lys Gly Val Met Arg Val Gly Ile Leu Ala Lys Gly
20          25          30
Leu Leu Leu Arg Gly Asp Arg Asn Val Arg Leu Ala Leu Leu Cys Ser

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<210> 5315
<211> 2298
<212> DNA
<213> Homo sapiens
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4484

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 1380
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 1500
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 1620
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<212> PRT

<213> Homo sapiens

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<210> 5322
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 5322
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 Asp Ser Pro Asn Val Tyr Thr Glu Lys Lys Glu Ile Ala Ile Leu Arg
 35 40 45
 Glu Arg Leu Thr Glu Leu Glu Arg Lys Leu Thr Phe Glu Gln Gln Arg
 50 55 60
 Ser Asp Leu Trp Glu Arg Leu Tyr Val Glu Ala Lys Asp Gln Asn Gly
 65 70 75 80
 Lys Gln Gly Thr Asp Gly Lys Lys Lys Gly Gly Arg Gly Ser His Arg
 85 90 95
 Ala Lys Asn Lys Ser Lys Glu Thr Phe Leu Gly Ser Val Lys Glu Thr
 100 105 110
 Phe Asp Ala Met Lys Asn Ser Thr Lys Glu Phe Val Arg His His Lys
 115 120 125
 Glu Lys Ile Lys Gln Ala Lys Glu Ala Val Lys Glu Asn Leu Lys Lys
 130 135 140
 Phe Ser Asp Ser Val Lys Ser Thr Phe Arg His Phe Lys Asp Thr Thr
 145 150 155 160
 Lys Asn Ile Phe Asp Glu Lys Gly Asn Lys Arg Phe Gly Ala Thr Lys
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 Glu Ala Ala Glu Lys Pro Arg Thr Val Phe Ser Asp Tyr Leu His Pro

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 195 200 205
 Lys

<210> 5323
 <211> 475
 <212> DNA
 <213> Homo sapiens

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<210> 5324
 <211> 105
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Gly Arg Arg Pro Tyr Lys Trp Arg Gly Val Gly Arg Lys Ala Trp Gln
 50 55 60
 Leu Trp Thr Ala Pro Arg Ser Leu Leu Leu Ser Val Gly Leu Ala Ser
 65 70 75 80
 Leu Arg Arg Ala Ser Gln His Ala Val Met Leu Pro Gln Leu Leu Ala
 85 90 95
 Val Ser Cys Leu Pro Asp Pro Gly Arg
 100 105

<210> 5325
 <211> 938
 <212> DNA
 <213> Homo sapiens

<400> 5325
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 360
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 420
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 720
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<210> 5326
 <211> 234
 <212> PRT
 <213> Homo sapiens

<400> 5326
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 35 40 45
 Gly Ser Ala Gly Cys Val Leu Ala Gly Arg Leu Thr Glu Asp Pro Ala
 50 55 60
 Glu Arg Val Leu Leu Leu Glu Ala Gly Pro Lys Asp Val Arg Ala Gly
 65 70 75 80
 Ser Lys Arg Leu Ser Trp Lys Ile His Met Pro Ala Ala Leu Val Ala
 85 90 95
 Asn Leu Cys Asp Asp Arg Tyr Asn Trp Cys Tyr His Thr Glu Val Gln

	100		105		110
Arg Gly Leu Asp Gly Arg Val Leu Tyr Trp Pro Arg Gly Arg Val Trp					
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Gly Gly Ser Ser Ser Leu Asn Ala Met Val Tyr Val Arg Gly His Ala					
	130		135		140
Glu Asp Tyr Glu Arg Trp Gln Arg Gln Gly Ala Arg Gly Trp Asp Tyr					
145		150		155	160
Ala His Cys Leu Pro Tyr Phe Arg Lys Ala Gln Gly His Xaa Ala Gly					
	165		170		175
Arg Gln Pro Val Pro Gly Arg Asp Gly Pro Leu Arg Val Ser Arg Gly					
	180		185		190
Lys Thr Asn His Pro Leu His Cys Ala Phe Leu Glu Ala Thr Gln Gln					
	195		200		205
Ala Gly Tyr Pro Leu Thr Glu Asp Met Asn Gly Phe Gln Gln Glu Gly					
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Phe Gly Trp Met Asp Met Thr Ile His Glu					
225		230			

<210> 5327

<211> 2084

<212> DNA

<213> Homo sapiens

<400> 5327

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900

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 1980
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<210> 5328

<211> 694

<212> PRT

<213> Homo sapiens

<400> 5328

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			20					25					30		
Arg	Cys	Val	Val	Ala	Ala	Phe	Trp	Ala	Asp	Val	Asp	Asn	Arg	Arg	Ala
		35					40					45			
Gly	Asp	Val	Tyr	Tyr	Arg	Glu	Ala	Thr	Asp	Pro	Ala	Met	Leu	Arg	Arg

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Gly Ser Ser Ser Ser Pro Val Asn Thr Phe Gln Thr Val Leu Ile Thr
      100      105      110
Asp Gly Lys Leu Ser Phe Thr Ile Phe Asn Tyr Glu Ser Ile Val Trp
      115      120      125
Thr Thr Gly Thr His Ala Ser Ser Gly Gly Asn Ala Thr Gly Leu Gly
      130      135      140
Gly Ile Ala Ala Gln Ala Gly Phe Asn Ala Gly Asp Gly Gln Arg Tyr
145      150      155      160
Phe Ser Ile Pro Gly Ser Arg Thr Ala Asp Met Ala Glu Val Glu Thr
      165      170      175
Thr Thr Asn Val Gly Val Pro Gly Arg Trp Ala Phe Arg Ile Asp Asp
      180      185      190
Ala Gln Val Arg Val Gly Gly Cys Gly His Thr Thr Ser Val Cys Leu
      195      200      205
Ala Leu Arg Pro Cys Leu Asn Gly Gly Lys Cys Ile Asp Asp Cys Val
      210      215      220
Thr Gly Asn Pro Ser Tyr Thr Cys Ser Cys Leu Ser Gly Phe Thr Gly
225      230      235      240
Arg Arg Cys His Leu Asp Val Asn Glu Cys Ala Ser Gln Pro Cys Gln
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Asn Gly Gly Thr Cys Thr His Gly Ile Asn Ser Phe Arg Cys Gln Cys
      260      265      270
Pro Ala Gly Phe Gly Gly Pro Thr Cys Glu Thr Ala Gln Ser Pro Cys
      275      280      285
Asp Thr Lys Glu Cys Gln His Gly Gly Gln Cys Gln Val Glu Asn Gly
      290      295      300
Ser Ala Val Cys Val Cys Gln Ala Gly Tyr Thr Gly Ala Ala Cys Glu
305      310      315      320
Met Asp Val Asp Asp Cys Ser Pro Asp Pro Cys Leu Asn Gly Gly Ser
      325      330      335
Cys Val Asp Leu Val Gly Asn Tyr Thr Cys Leu Cys Ala Glu Pro Phe
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Lys Gly Leu Arg Cys Glu Thr Gly Asp His Pro Val Pro His Ala Cys
      355      360      365
Leu Ser Ala Pro Cys His Asn Gly Gly Thr Cys Val Asp Ala Asp Gln
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Gly Tyr Val Cys Glu Cys Pro Glu Gly Phe Met Gly Leu Asp Cys Arg
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Trp Ala Pro Thr Pro Pro Ser Ala His Ala Pro Cys Gly Xaa Ser Leu
      420      425      430
Gly Phe Ser Val Asn Leu Lys Ser Gln Pro Xaa Pro Cys Asn Met Asn
      435      440      445
Thr Gln Cys Pro Asp Gly Gly Tyr Cys Met Glu His Gly Gly Ser Tyr
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Leu Cys Val Cys His Thr Asp His Asn Ala Ser His Ser Leu Pro Ser
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Pro Cys Asp Ser Asp Pro Cys Phe Asn Gly Gly Ser Cys Asp Ala His

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